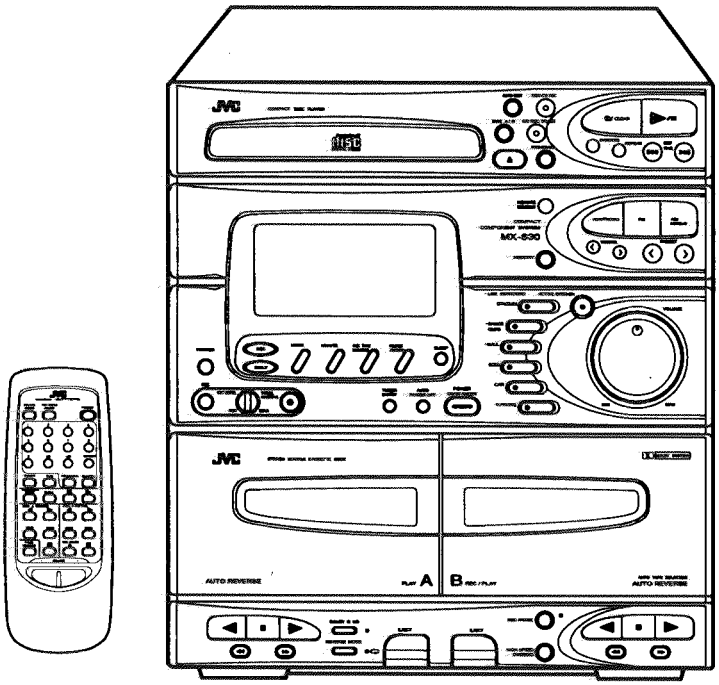
JVC

SERVICE MANUAL

COMPACT COMPONENT SYSTEM

CA-S30BK



COMPACT disc DIGITAL AUDIO

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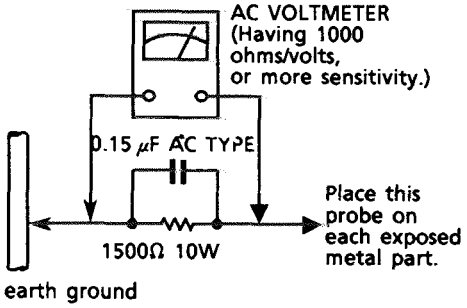
No. 20457
Dec. 1993

Safety Precautions

1. The design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (⚠) on the Parts List in the Service Manual. The use of a substitute repalcement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.
5. Leakage currnet check (Electrical shock hazard testing)
   After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, contorl shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.
   Do not use a line isolation transformer during this check.
   - Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.).
   - Alternate check method
     Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500Ω 10 W resistor paralleled by a 0.15 μF AC-type capacitor between an exposed metal part and a known good earth ground.
     Measure the AC voltage across the resistor with the AC voltmeter.
     Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and meausre the AC voltage across the resistor.
     Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

Important for Laser Products

1. CLASS 1 LASER PRODUCT
2. **DANGER** : Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.
3. **CAUTION** : There are no serviceable parts inside the Laser Unit. Do not disassemble the Laser Unit. Replace the complete Laser Unit if it malfunctions.
4. **CAUTION** : The compact disc player uses invisible laser radiation and is equipped with safety switches which prevent emission of radiation when the drawer is open and the safety interlocks have failed or are defeated. It is dangerous to defeat the safety switches.
5. **CAUTION** : If safety switches malfunction, the laser is able to function.
6. **CAUTION** : Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
7. **CAUTION** : The compact disc player provides a laser diode of wavelength 780-790nm and optical output power typical 3mW at the laser diode.

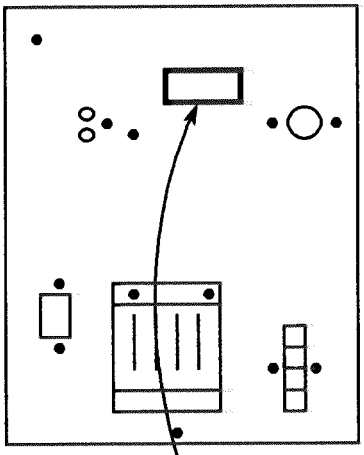
VARNING : Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.

VARO : Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.

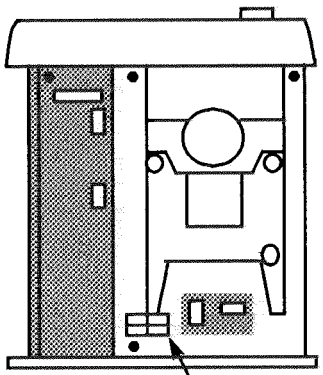
ADVARSEL : Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

ADVARSEL : Usynlig laserstråling ved åpning, når sikkerhetsbryteren er avslott. unngå utsettelse for stråling.

REPRODUCTION AND POSITION OF LABELS



CLASSIFICATION LABEL



WARNING LABEL

DANGER: invisible laser radiation when open and interlock failed or defeated. AVOID DIRECT EXPOSURE TO BEAM. (e)	VARNING: Osynling laser-stråling när denna del å öppnad och spärren är urkoppled. Betrakta ej stålen. (s)
ADVARSEL: Usynling laser-stråling ved åbning, når sikkerhedsafbrydere er ude at funktion. Undgåudsæt-telse for stråling. (d)	VARO: Avattaessa ja suo-jalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen. (f)

Instruction Book

Troubleshooting

- If you are having a problem with your CA-S30BK, check this list for a possible solution before calling for service.
- If you cannot solve the problem from the hints given here, or the Unit has been physically damaged, call a qualified person, such as your dealer, for service.

Symptom	Possible Cause	ACTION
No sound is heard.	Connections are incorrect, or loose.	Check all conections and make corrections. (See pages 3 and 4.)
Impossible to record.	Cassette record protect tabs are removed.	Cover holes on back edge of cassette with tape.
Hard to listen to broadcasts because of noise.	The antenna is disconnected.	Re-connect the antenna securely.
	The loop antenna is too close to the system.	Change the position and direction of the loop antenna.
	The feeder/wire antenna is not properly extended and positioned.	Extend feeder/wire antenna at the best reception position.
The CD sound is discontinuous.	The CD is scratched or dirty.	Clean or replace the CD.
Unable to operate the Remote.	The path between the Remote and the sensor on the Unit is blocked.	Remove the obstruction.
	The batteries are discharged.	Replace the batteries.
The CD tray cannot be operated.	The main AC power cord is not plugged in.	Plug in the AC power plug.
The CD does not play.	The CD is upside down.	Put the CD in with the label side up.
Operations are disabled.	The built in microprocessor may malfunction due to external electrical interference.	Unplug the system then plug it back in.
The cassette carrier cannot be opened.	The system was turned off because the timer was operated while the tape was running.	Turn On the system.

Specifications

Amplifier
Output Power (IEC 268-3/DIN)
25 watts per channel, min. RMS, both channels driven, into 6 ohms at 1 kHz with no more than 0.9% total harmonic distortion.

Input Sensitivity/Impedance (1 kHz)
PHONO/AUX (selectable)

PHONO	3 mV/50 kohms
AUX	300mV/50 kohms
MIC	2 mV/10 kohms

Speaker terminals

Main speakers	6 ohms

Tape deck
Frequency response

CrO_2:	30 ~ 16,000 Hz
Normal:	30 ~ 15,000 Hz
Wow and Flutter	0.09% (WRMS) (0.2% DIN)

Tuner
FM Tuner

Tuning Range	87.5 ~ 108.0 MHz
Usable Sensitivity	0.95 µV/75 ohms (10.8 dBf)
Signal-to-Noise Ratio (IHF-A weighted)	MONO (at 85 dBf) 80 dB STEREO (at 85 dBf) 73 dB

AM Tuner

MW- Tuning Range	522 ~ 1,629 kHz
LW- Tuning Range	144 ~ 353 kHz
	144 ~ 290 kHz (Italy only)

Compact Disc Player

Dynamic Range (1 kHz)	90 dB
Signal-to-Noise Ratio	95 dB
Wow and Flutter	Unmeasurable

General

Power Requirements	230 V AC ~ 50 Hz
Power Consumption	110 Watts
Dimensions (Approx.)	245 x 265 x 344.5 mm (W/H/D) ($9^{3}/_{4}$ x $10^{1}/_{2}$ x $13^{9}/_{16}$ in.)
Weight (Approx.)	7.3 kg (16.1 lbs)

Supplied Accessories
FM wire antenna (only for Germany) (1)
FM feeder antenna (except for Germany) (1)
AM loop antenna (1)
Remote control (RM-SES30U) (1)
Batteries R03(UM-4)/AAA(24F) (2)
Antenna adaptor (except for Germany) (1)

Design and specifications subject to change without notice.

Features

Here are some of the things that make your CA-S30BK powerful and easy to use.

Great sound

❑ To get such great sound from such a compact package the CA-S30BK has:

- Pre-programmed live surround effects like **STADIUM, DANCE CLUB, HALL** as well as SEA effects like **BGM, CAR, H. PHONE** so you don't have to be a sound engineer to get great effects.

Easy operation

COMPU PLAY

❑ The controls and operations have been redesigned to make them very easy to use so you can spend your time listening to music.

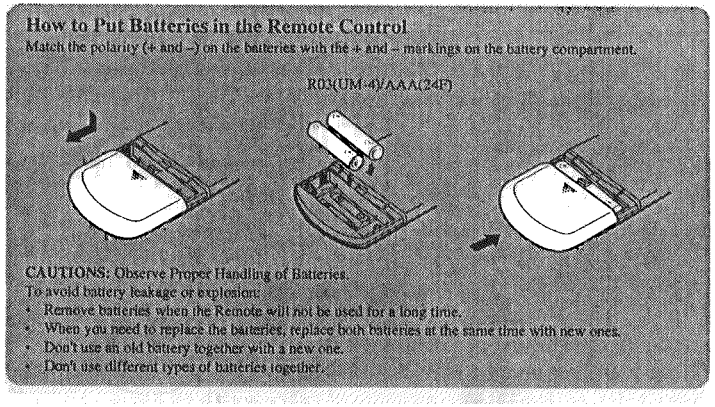
- With the One Touch Operation feature of JVC's new **COMPUPLAY** you can turn on the CA-S30BK and start the radio, the tape deck, or the CD player with a single touch.
- Four timers, **REC Timer, DAILY Timer, SLEEP Timer** and **AUTO POWER OFF** are extremely easy to set so you can really use them.
- **The Display** is large and clear. It's organized so you can tell at a glance what's happening because functions light up as you use them, and blink to tell you they are ready. It gives you some important messages like "NO DISC," "NO TAPE" and some others.
- **Auto Edit** figures out how to arrange CD tracks on a tape. When you are recording a tape from a CD, the selections aren't cut off if the tape ends before the selection does.

Sing along

❑ You can use conventional tapes and CDs for singing along with the voice canceller system. With an optional microphone, you can replace the lead singer's voice on your favourite songs with your own.

IMPORTANT CAUTIONS

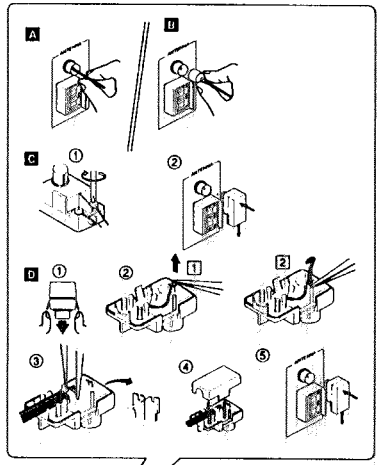
1. **Installation of the Unit**
   - Select a place which is level, dry and neither too hot nor too cold (between 5°C and 35°C).
   - Leave sufficient distance between the Unit and your TV.
   - Do not use the Unit in a place subject to vibrations.
2. **Power cord**
   - Do not handle the power cord with wet hands!
   - When unplugging from the wall outlet, always pull the plug, not the power cord.
3. **Malfunctions, etc.**
   - There are no user serviceable parts inside. If anything goes wrong, unplug the power cord and consult your dealer.
   - Do not insert any metallic object into the Unit.


How to Put Batteries in the Remote Control
Match the polarity (+ and –) on the batteries with the + and – markings on the battery compartment.
R03(UM-4)/AAA(24F)
CAUTIONS: Observe Proper Handling of Batteries.
To avoid battery leakage or explosion:
• Remove batteries when the Remote will not be used for a long time.
• When you need to replace the batteries, replace both batteries at the same time with new ones.
• Don't use an old battery together with a new one.
• Don't use different types of batteries together.

Connection Diagrams and Instructions

Connecting the AM (MW/LW) and FM Antennas

FM Antenna Connections



For Germany

A Using the Supplied Wire Antenna
The FM wire antenna provided can be connected to a FM 75-ohm COAXIAL as a temporary measure.
Connect the Antenna Adaptor to the FM 75-ohm COAXIAL terminal.

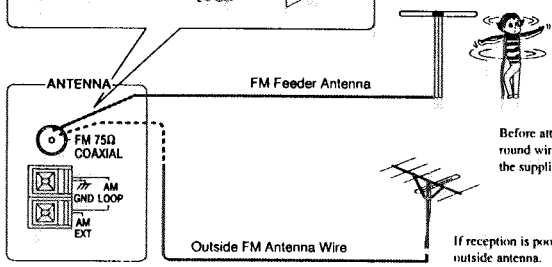
B Using the Coaxial Type Connector (Not Supplied)
A 75-ohm antenna with coaxial type connector (DIN 45332) should be connected to the FM 75-ohm COAXIAL terminal.

For Other Continental Europe

C Using the Supplied Feeder Antenna
① Attach the feeder antenna to the FM connector as shown in the figure.
② Connect the FM connector to the FM 75-ohm COAXIAL terminal.

D Using FM 75-ohm Antenna Cable (Not Supplied)
① Open the claws at both sides and remove the cover.
② Move the conductor wire from [1] to [2] using tweezers or similar tool (only when using coaxial cable).
③ Fix the coaxial cable and its core.
④ Put on the cover.
⑤ Connect the FM connector on the FM 75-ohm COAXIAL terminal.

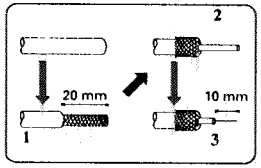
Note:
Make sure the antenna conductor do not touch any other terminals, connecting cords and power cord on the system.
This could cause poor reception.



For Germany
Extend the supplied wire antenna horizontally.
For other continental Europe
Unfold the loops of the supplied dipole FM feeder antenna and extend them as shown. Fasten them up in the position which gives you the best FM reception.

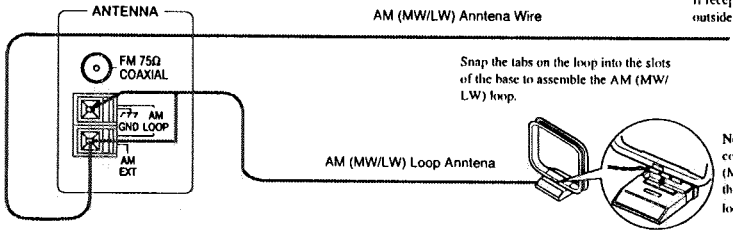
Before attaching a 75 ohm coaxial lead (the kind of round wire going to an outside antenna), disconnect the supplied dipole indoor antenna.

If reception is poor, connect the outside antenna.



How to Strip the 75-ohm Coaxial Cable
1. Strip back the outside covering of the 75 ohm coaxial cable to expose the braided metallic mesh.
2. Pull the mesh back and twist into a single connector as shown.
3. Strip the insulation about 10 mm back from the central wire.
4. Attach to the supplied Antenna Adaptor, as shown in the diagram above.

AM (MW/LW) Antenna Connections



If reception is poor, connect the outside antenna.

Snap the tabs on the loop into the slots of the base to assemble the AM (MW/LW) loop.

Note: Even when connecting an outside AM (MW/LW) antenna, keep the indoor AM (MW/LW) loop connected.

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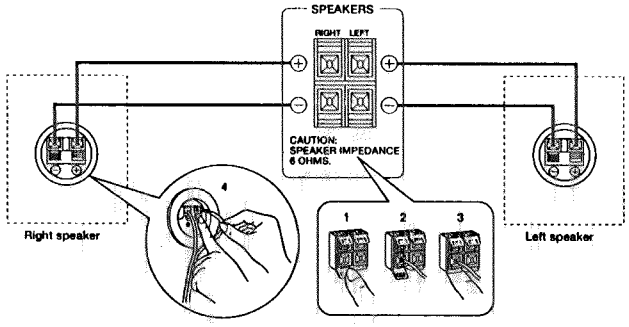
Connecting the Speakers



For each speaker connect one end of the speaker wire to the speaker terminals on the back of the CA-S30BK and one end to the speaker. On the back panel:

1. Open each terminal.
2. Insert the end of the speaker wire as shown (be sure to remove the insulation at the end of each wire first).
3. Close the terminals to clamp the speaker wires firmly in place.
4. Connect the red (+) and black (–) terminals of the right side speaker to the red (+) and black (–) terminals marked RIGHT on the CA-S30BK.
   Connect the red (+) and black (–) terminals of the left side speaker to the red (+) and black (–) terminals marked LEFT on the CA-S30BK.

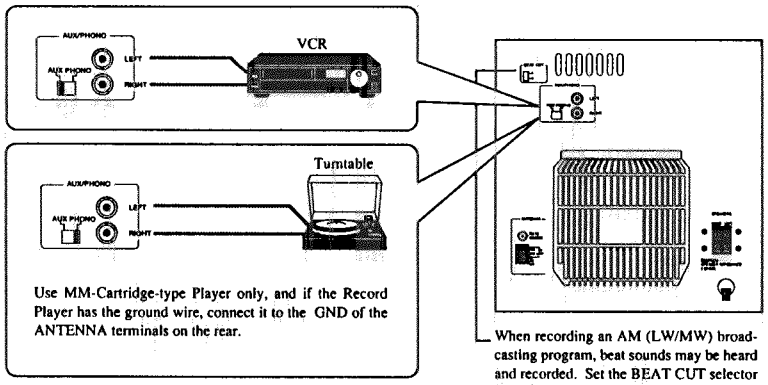
IMPORTANT: Match the polarity of the speaker terminals with the polarity of the terminals on the CA-S30BK, red (+) to red (+) and black (–) to black (–). Check your speakers for correct impedance: 6 ohms only.

Connecting Auxiliary Equipment

Set this selector to either PHONO or AUX. For a Record Player, set to PHONO; for others, set to AUX.
IMPORTANT
Make sure that the power is turned off before setting this selector.

VCR

Record Player



Use MM-Cartridge-type Player only, and if the Record Player has the ground wire, connect it to the GND of the ANTENNA terminals on the rear.

When recording an AM (LW/MW) broadcasting program, beat sounds may be heard and recorded. Set the BEAT CUT selector to either 1 or 2, so that beat sounds will not be heard or recorded.

Read Me First

How to get the most for your money by using this manual.

The Engineers at JVC have made the CA-S30BK very easy to use, and if you are experienced using audio equipment, you can figure out how to use some of the CA-S30BK controls by yourself. However, we have built some new features into this model, which you can learn about easily from the manual.

If you are a new user or just want a review, this manual explains how to use the CA-S30BK and take advantage of its features for playing and recording music, as well as other sounds. One way to use this manual is to read it through now and refer back to it when you need to refresh your skills for some special operation. Of course you can just look up the topics, such as recording a CD, that you want to do, but remember that you may need to refer to other parts of the manual for some of the instruction: for instance, in explaining how to record a CD, we assume you already know how to load a CD. That's why we recommend that you read the manual through once before starting. We've made it short, and easy to follow.

However before you proceed, please read the Cautions on page 2 and the set-up directions.

IMPORTANT!
Special features for a special Manual.

How This Manual Is Organized

We have incorporated some special features in this manual:

- A fold-out page to look at while you read the instructions shows the front controls of the CA-S30BK. Some procedures have the illustrations of which control to use right with them, and for some you will need to look at the fold-out for the illustration.
- Basic information that is the same for many different functions is grouped in one place, and not repeated in each procedure. For instance, in the section on playing a CD, we do not repeat the information about setting the volume and the sound conditioning, which are mentioned in the Common Operations section.
- Names of buttons, controls and function names that light up on the display panel are written in all Capital letters like this: POWER.
- When we are talking about the Function, rather than the BUTTON or DISPLAY, then we just capitalize the first letter of the words.
- The ☞ alerts you to important information or how to solve special problems that may occur when using the CA-S30BK.

The column on the left of the page is a special place to make it easier to find just what you want to know about, with little headlines announcing what each part of the page is about. Sometimes illustrations and helpful hints are placed here also.
Basically we use three kinds of information to help you understand and use the CA-S30BK:

- ❑ Information about what you can do (such as record a CD or preset a radio station) and how the Unit is designed to make doing this activity easy.
- ❑ Procedures, usually numbered in the order you do the steps, to guide you in exactly what to do to accomplish something, such as tune a radio station or record a tape.
- ❑ Information you need to know to make decisions about which functions of the CA-S30BK to use for particular tasks (such as when to use Dolby NR to improve tape sound) and special hints to make your work go smoothly, like reminding you to set the sound effects before starting the CD to tape recording, since they cannot be changed once recording begins without starting completely over.

The manual has a table of contents to help you easily look up what you want to know too.
We've enjoyed making this manual for you, and hope you will use it to enjoy the sound and many features built into your CA-S30BK.

Getting Started Right

Unpacking

Inside the packing box....

Of course you have already opened your CA-S30BK carton, since you are reading this manual. Although the Unit is quite sturdy, you may want to save the packing to re-pack your CA-S30BK in case you are moving it some distance. Check to be sure you have all of the following things, which are supplied with the CA-S30BK:

AM (MW/LW) Antenna

Remote Control

Batteries

FM Feeder Antenna (except for Germany)

Antenna Adaptor (except for Germany)

FM Wire Antenna (only for Germany)

If any are missing, contact your dealer immediately.

Location

Where can you put it?

You can place the CA-S30BK in many different kinds of locations to suit your needs; just observe the cautions on page 2: keep away from moisture and heat; leave some space between the Unit and its surroundings, more than 1 cm at the sides of the console and 10 cm at the back.

Set Up

Very little assembly required

You will need to do the following four things to get your CA-S30BK ready to use.

1. Connect the Antenna(s).
2. Connect the Speakers.
3. Put Batteries (included) in the Remote.
4. Connect other sound sources (VCR, Record Player) if used.

1. Connect the Antenna(s)

Please look at the diagrams on pages 3 and 4 to do these things.

Follow the diagrams on page 3. Here's what you need to know:

- ❑ For AM (MW/LW) reception you must connect the supplied loop antenna. If reception is poor, connect the outside antenna, but leave the loop antenna in place—the AM (MW/LW) will not work correctly without it.
- ❑ For FM reception, connect the supplied wire as shown. However, if you use an outdoor antenna, disconnect the indoor FM antenna first.
- ❑ To avoid noise, keep antennas away from metalic parts of the CA-S30BK, connecting cords and the AC power cord.

2. Connect the Speakers

Basically, you look at the diagrams on page 4 and follow the pictured instructions.

3. Put Batteries in the Remote

Pay close attention to getting the batteries in correctly—we've made it very easy, just match the + and – marks on the batteries with the + and – markings on the Remote. See page 2 for instructions

> **CAUTION:** Handle batteries with care. See page 2 for proper use of batteries.

4. Connect Other Sound Sources, such as VCR or Record Player (Optional)

You can play the sound portion of a TV program or video tape through your CA-S30BK's sound system, often improving it greatly. A VCR or Record Player can also be hooked up to play through the CA-S30BK. Just follow the diagram on page 4. In order to play a connected source through the CA-S30BK, you have to set the PHONO/AUX selector on the rear panel in place.

> **CAUTION:** DO NOT connect optical equipment while the power is ON.

Now you can plug the AC power cord into the wall socket, and your CA-S30BK is at your command!

> **CAUTION:** First make all connections before pluging the Unit into any AC power outlet.

Read on and find out how to use the many features built into your Unit.....

Common Operations

Here are the things that apply to all the functions of your CA-S30BK. If something in a procedure is unclear to you, check back here.

COMPUPLAY

The Magic of

COMPUPLAY is JVC's new feature that lets you control the most used functions of the CA-S30BK with a single touch. This One Touch Operation starts playing a CD, turns on the radio, plays a tape, etc. with a single press of the play button for that function. What One Touch Operation does for you is to turn the power on, then start the function you have called for. If the Unit is not ready, such as no CD or tape in place, the Unit still comes on and then gives you a message on the display so you can put in a CD or tape.
How One Touch Operation works in each case is explained in the respective section about that function.

Turning the CA-S30BK On

Press POWER; the stand-by indicator on POWER goes out.

- ❑ The CA-S30BK comes on ready to do whatever it was doing when the power was last shut off. So if the last thing you were doing was listening to a tape in deck B, you now are ready to listen to a tape again in deck B, or you can change to another source.
- ❑ If you were listening to the radio last, the radio comes on playing that last station.

Turning the CA-S30BK Off

Press POWER again; the stand-by indicator lights up and the display blanks, except for the clock display.

- ❑ A small amount of power (13 watts) is always consumed even though the power is turned off (called standby mode).
- ❑ To switch the power off completely, unplug the power cord.

Controlling the Sound

Making it sound the way *You* want it to:

The same set of buttons and knobs control the sound, no matter which function is producing it. Here we will briefly explain how these controls work, and how you can use them to increase your enjoyment of the music.

•Volume

Volume Control

Rotate clockwise to increase loudness, counter-clockwise to reduce loudness. Be sure to read the caution at the end of this section about high sound levels damaging your hearing or your equipment.

Sound Modes

The CA-S30BK has some preset sound effects that let you control of way your music sounds, so you can tailor it for your room and for the quality of the source. We can give you some idea of how each one affects the music, but the only way to really tell is try them yourself.
You can use only one effect at a time selecting from the LIVE SURROUND and SEA effects. Feel free to experiment!
To get an effect, press a preset button so that the indicator on the button lights up.
To cancel the effect, press the button again, or press another preset button to select another effect.

•STADIUM
•DANCE CLUB
•HALL

LIVE SURROUND effects
With these effects, the sound coming from only two speakers approaches the quality of sound from four speakers.
•STADIUM — Adds clarity and spreads the sound, like in an outdoor stadium.
•DANCE CLUB — Increase resonance and bass.
•HALL — Adds depth and brilliance to the sound, like in a concert hall.

BGM
CAR
H. PHONE

Preset SEA (Sound Effect Amplifier) effects
Adjustments of frequency range levels have been preset as three SEA effects.
BGM — Used as a background music.
CAR — Used for recording tapes to listen to in a car.
H. PHONE — Used for recording tapes to listen to with headphones.

> ☎ On the Remote, you can't find buttons for these preset sound effects. By pressing SOUND MODE on the Remote, you can cycle through the effects one after the other.

Things to remember about using preset effects:

- ❑ Set a preset effect before you start recording with REW/CD REC or Auto Edit, because once recording starts, the preset effect cannot be changed without stopping recording, and often having to start over. If you need different effects for each selection, use the standard recording features described on page 13, rather than REW/CD REC or Auto Edit.
- ❑ Each of the preset effects changes the sound in a different way by changing which parts of the sound are increased or reduced. To see how each part of the sound will be changed, watch the display just as you select an effect when music is playing. For a short while, the display shows the pattern of enhancement for that effect.

(No. 20457) 1-7

Active BASS Effect

The richness and fullness of the sound is maintained regardless of how high or low you set the VOLUME control.
To get the effect, press ACTIVE BASS EX so that the indicator on the button lights up.
To cancel the effect, press the button again so that the indicator goes off.

Using the Tuner Entry Function

TUNER ENTRY

With Tuner Entry on, the Unit automatically shifts to the most recently played radio station when tape or CD play is over.
To get the function, press TUNER ENTRY so that "TUNER ENTRY" appears on the display.
To cancel the function, press the button again so that "TUNER ENTRY" disappears.

- ❑ In the following situations, even if Tuner Entry is on, it will not take effect:
  - When you intentionally stop the CD player or tape deck by pressing ■/CLEAR on the CD player or ■ on the tape deck.
  - After the CD player or tape deck stops playing while Auto Power Off (see page 18) is on.
  - When the tape deck is in Reverse Mode (see page 12).

Listening with Headphones

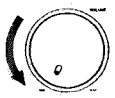
A pair of headphones can be connected to the PHONES jack on the front panel. **Be sure to turn down the volume before connecting or putting on headphones, as high volume can damage both the headphones and your hearing.**

The Display and the Indicators—Two Very Useful Hints

The Display and The Indicators

- ❑ The display tells you many useful things about what your Unit is doing. Watch it as you give instructions by pressing buttons. It also gives you some messages like "NO DISC," "NO TAPE," and some others to show you what to do next.
- ❑ Some of the controls have a small light, called an indicator, right next to or even right on the button or knob itself. The light comes on when the function is on, and goes off when it is not in use.

Caution: Too LOUD!



CAUTION: Always set the VOLUME control to MIN before turning on a connected source such as a VCR or turntable, or starting any other of the sound sources such as the radio, tape, or CD player. Otherwise, if the VOLUME control is turned up, the sudden blast of sound energy can permanently damage your hearing and/or ruin your speakers.

Listening to the Radio

You can listen to both AM (MW/LW) and FM.
- ❑ Before listening to the radio, check that both the AM (MW/LW) and FM antennas are firmly connected.
- ❑ To listen to the radio after CD or tape play, see "Using the Tuner Entry Function," above.

COMPU PLAY Radio

One Touch Radio

Just press AM (MW/LW) to turn on the Unit and start playing the most recent AM (MW/LW) station tuned in, or press FM to start the most recent FM station tuned in.

- ❑ You can switch from any other sound source to the radio by pressing either AM (MW/LW) or FM.

Tuning in a Station

Press AM or FM to turn on the radio. The display shows the station frequency tuned to.

Three ways to tune in a station

Three ways to select a station

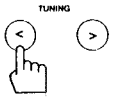
1. Press TUNING < or > repeatedly to move from frequency to frequency until you find the one you want.
   OR
2. Hold down TUNING < or >, the frequency starts changing on the display. When a station is tuned in, "TUNED" lights up on the display and the frequency stops changing.
   OR
3. Press once and release PRESET < or > to go to the next preset station, or hold PRESET < or > to cycle through the preset stations: release the button when the preset station you want shows on the display. (This method is possible only after presetting stations.)

You can also use the Remote to tune in stations and preset channels:
To tune preselected stations with the Remote:
1. Press FM or AM depending on which band you want.
2. Select the station by entering the preset channel number in the 10 key pad of the Remote.

Presetting Stations

How to preset AM and FM radio stations

Once a station is assigned to a channel number, the station can be quickly tuned either from the Remote using the 10 key pad of the Remote or the CA-S30BK itself using PRESET < or > to call up the channel number.
- ❑ You can preset 40 AM (MW/LW) and FM stations at random.
- ❑ Preset stations may be erased when power is cut off to the Unit, as when it is unplugged from the AC outlet or a power failure occurs. If the preset stations are lost, simply set the stations again using the following procedure.



To preset radio stations

1. Tune in the station you want to set using TUNING < or >.
2. Press MEMORY.
   On the display "MEMORY" will blink for 8 seconds.
   - ❑ During these 8 seconds while "MEMORY" is blinking you can assign a channel number to the station and enter it into the memory.
3. Select a channel number by pressing PRESET < or > until you find the channel number you want.
4. Press MEMORY and the station will be assigned to the channel number showing on the display.
   - ❑ If a station has been previously stored using the same channel number, it will be erased and the newly selected station will be stored.

Receiving in Stereo or Mono

When an FM stereo broadcast is hard to receive or noisy:
- ❑ Press FM MODE/MUTE on the remote control so that reception improves, although you loose the stereo effect. In this state, you will hear noise while tuning into stations.
- ❑ To restore stereo effect, press FM MODE/MUTE again so that "AUTO" appears on the display. In this state, when a program is broadcast in stereo, you will hear stereo sound; when in monaural, you will hear monaural sounds. Furthermore, in this state, you won't hear noise while tuning into stations.

Listening to a Compact Disc

COMPU PLAY
Compact Disc Play

The quickest way to start a CD is with the One Touch Operation:
- ❑ Press ⊳/II on the CD player or ► on the Remote.
  - If a CD is already loaded, the Unit automatically turns on and starts to play it from track 1.
  - If no CD is loaded, the Unit automatically turns on and the CD tray opens. This is exactly the same as what happens if you press ≜ instead of ⊳/II.

Basics of Using the CD Player

Here are the basic things you need to know to play a CD and locate the different selections on it. Each selection is called a track, so when we are talking about locating a track, we are also talking about how you find a certain song or performance.

How to use the CD player: from the most basic to advanced

To Play a CD

1. Press ≜.
2. Put a CD, printed side up, into the tray.
3. If you want to listen to the CD now, press ⊳/II (or ► on the Remote).
   The display shows the track being played and the length of time since it started.

To stop the CD, press ■/CLEAR (or ■ on the Remote). When you start again, the CD begins with track 1.

To pause the play, press ⊳/II while the CD is playing so when you press ⊳/II again (or ► on the Remote) the CD starts just where you left off.

To remove a CD, press ≜, take the CD out, and press ≜ again to close the tray. Keep the tray closed except during loading and unloading to protect the mechanism from dust and damage.

How to find a track

How to Find the Track or a Particular Point You Want

Each time you press briefly and release EDIT TIME I◄◄ or ►►I (I◄◄ or ►►I on the Remote) the track changes by one.
- ❑ Press and release EDIT TIME ►►I (or ►►I on the Remote) to go ahead one track at a time.
- ❑ Press and release EDIT TIME I◄◄ (or I◄◄ on the Remote) to go back one track at a time.
- ❑ Holding down EDIT TIME I◄◄ or ►►I will fast forward or fast reverse the CD so you can quickly find the particular part of a track you want to listen to. Fast forward and fast reverse are only possible by using the buttons on the Unit when the CD is playing.
- ❑ Holding down I◄◄ or ►►I on the Remote allows you to change the tracks continuously. (By using the buttons on the Unit, it is only possible when the CD is not playing.)

Using the Remote to find a track

Locating a Track with the Remote

Using the 10 key pad on the Remote allows you to go directly to the beginning of any track.
1. Press ►.
2. Enter the number of the track you want using the 10 key pad. The selected track will start to play.
   - Example: for track 5, press 5. For track 15, press +10 then 5. For track 20, press +10, then 10.

With programming, you can play back tracks in any order

Programming the Playing Order of the Tracks

In addition to the high quality sound which makes the CD such a good way to listen to music, you can change the order in which the tracks play.

Random Play

The tracks will play in no special order when you use this play mode.
Before starting a CD, press RANDOM on the CD player.
When all of the tracks have been played, the CD shuts off.
- ❑ Press REPEAT before or during random play to instruct the CA-S30BK to continue with a different random track selection after the last selection is played.

To cancel random play, press ■/CLEAR (or ■ on the Remote).

Program with the Remote

Programmed Play

You can arrange the tracks to play in any order you like with the Program function. The Remote is very useful for this because you can select tracks by number with the 10 key pad. See "How to Use the Remote Control," page 20, if you need more information about its use. You can also use the main Unit.

How to program: just 3 easy steps

To program the order of CD tracks using the Remote
1. Press PROGRAM.
2. Press CD 10 key.
3. Press the number of the first track you want to hear, then the number of the second track, and so on until you have entered all the track numbers you want to play.
   - ❑ Refer to the section "How to use the Remote Control" on page 20 if you have questions about how to enter numbers above 10.
   - ❑ Your program can include up to 32 tracks, and you can repeat tracks if you wish.
4. Press ► to start the program—the first track you programmed will start to play, followed by the next one you entered, until all the selected tracks are played.

To program the CD from the Unit
1. Press PROGRAM.
2. Press EDIT TIME I◄◄ or ►►I to locate the track you want to start with.
3. Press PROGRAM to store the selected track.
4. Repeat steps 2 and 3 until you have entered all the tracks you want to program.
5. Press ⊳/II and the Unit will begin playing the tracks in the order you programmed them.

To stop the CD during programmed play, press ■ on the Remote or ■/CLEAR on the Unit.

To cancel the program, press PROGRAM on the Remote or ■/CLEAR on the Unit while the CD is not playing.

Programming Hints

A few hints to make programming easier
- ❑ To add a track to your program, enter the track numbers with the 10 key pad. Any tracks you add will appear at the end of the current program.
- ❑ If you want to change the number of a track you just entered, press CANCEL on the Remote, and enter another number. (When the display shows the total program time, press CANCEL twice to remove the last selection entered.)
- ❑ If you want to change the entire program, press ■/CLEAR on the Unit while the CD is off, and then you can start over.
- ❑ To check the order of the tracks in your program in STOP mode, press I◄◄ or ►►I on the Remote to display the order of the tracks. Each time you press ►►I the next selection in your program is displayed. (Press I◄◄ for the previous selections.)

Repeat a selection or the whole CD

Repeating a Selection or the Entire Disc

You can have either the program or the individual selection currently playing repeat as many times as you like by pressing REPEAT.
Each time you press REPEAT, it cycles from function-off, which turns "REPEAT" out on the display, to "REPEAT" which will repeat all tracks in order or according to the program you have set, and then to "REPEAT 1" which will repeat the currently playing track.

To cancel repeat mode, press REPEAT until the "REPEAT" or "REPEAT 1" goes off on the display.

Listening to a Tape

Listen to a tape: How to use your tape deck

The tape deck allows you to play, record and dub audio tapes.
- ❑ Most of tapes are now recorded with the Dolby NR system, so first check which type of the Dolby NR system is used on the tape. Only the Dolby B NR is incorporated into the CA-S30BK.
- ❑ With Automatic Tape Type Detection, you can listen to type I, II, or IV tapes without changing any settings.
- ❑ To record or dub, see Recording on page 13.

COMPU PLAY

Playback Procedure

One Touch Play

By pressing either ⊳ or ◅ on either deck A or B (► or ◄ on the Remote), the power will come on, and if a tape is in the deck, it will start to play. If no tape is loaded, the Unit will come on and wait for further instructions.

Regular Play

When the power is already on, you can use this basic procedure:
1. Press EJECT of the deck you want to use.
2. When the cassette carrier opens, put the cassette in, with the exposed part of the tape down toward the base of the CA-S30BK.
   - ❑ If the cassette carrier does not open, turn the Unit off, then back on again and press EJECT.
3. Close the carrier gently.
4. Press ⊳ to play the front side, or ◅ to play the reverse side. The arrow indicator on the pressed button starts blinking and tape play starts.

To stop playing, press ■.

To remove the tape, press EJECT.

Fast Left and Fast Right

- ❑ While the tape is stopped, press ◄◄ and the tape will wind rapidly onto the left side of the cassette without playing.
- ❑ While the tape is stopped, press ►► and the tape will wind rapidly onto the right side of the cassette without playing.

Finding the place you want: Music Scan

Music Scan

To find the beginning of a music track during play, use the Music Scan function. Music Scan searches for blank portions that usually separate tracks, then plays the next song.

- ❑ If you are recording on deck B or put deck B in recording pause mode, Music Scan will not work on deck A.

Scan Back

To find the beginning of the current song

Press ◄◄ or ►► during play.

- ❑ Make sure that you press ◄◄ or ►► in the opposite direction as tape play. Searching stops automatically at the beginning of the current song, and the current song starts automatically.

Scan Forward

To find the beginning of the next song

Press ◄◄ or ►► during play.

- ❑ Make sure that you press ◄◄ or ►► in the same direction to tape play. Searching stops automatically at the beginning of the next song, and the next song starts automatically.

☞ The Music Scan works by detecting a 4-second long blank at the beginning of each selection. So it won't work well if your tape has:

- No blank at the beginning of a track.
- Noise (often caused by much use or poor quality dubbing) which fills the blank with noise.
- Long very soft passages or pauses in a selection. The scan will detect these instead of the 4-second long blanks. If this happens, just go ahead and scan again until you reach the selection you want.

More Useful Things to Know:

- **Reverse Mode**
- **Continuous Play**
- **Dolby**

Useful Other Features Using the Tape Deck

- ❑ Use **Reverse Mode** to make the tape automatically reverse at the end of a side and start playing the other side. Press REVERSE MODE to change from Reverse Mode on (the indicator is lit) to Reverse Mode off, or from off, to on.
- ❑ **Continuous Play:** When a tape finishes playing, the Unit always checks to see if a tape is in the other deck. If one is there, it automatically starts playing it while rewinding the first tape. This Continuous Play happens regardless of which deck starts first.
  - With the Reverse Mode on, the other tape will start playing when both sides of the first tape have been played. As long as the REVERSE MODE indicator is lit, the tapes will continue to play in the above sequence.
  - With the Reverse Mode off, the tape will play to the end of the current side, switch to the other deck and start playing a tape there while rewinding the first tape. Then when one side of the tape in the other deck is over, the first deck starts playing the same side again. The tapes will continue to play in the above sequence.
- ❑ Press DOLBY B NR to switch **Dolby Noise Reduction** on (the indicator lights up) or off (the indicator goes off). If a tape is recorded with Dolby B NR, playing it back with the Dolby NR on will reduce tape noise and improve the clarity of the sound.

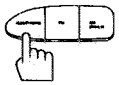
Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

Listening to an VCR or Optional Turntable

Advantages in Connecting a VCR or turntable

By playing the sound from a VCR or turntable through the CA-S30BK, you can often dramatically improve the quality, and gain control over how the music or program sounds. Once the connected equipment is playing through the CA-S30BK, you can apply the sound effects, make recordings, or listen with the headphones.

- ❑ First make sure that the connection between optional equipment and the CA-S30BK has been done correctly and that the setting of the input selector (AUX/PHONO) is correct on the rear panel.



1. Set the Unit's volume to MIN.
2. Press AUX on either the Remote or the Unit.
   "AUX" lights up on the display.
3. Start playing the connected equipment.
   The sound from the connected source is now played through the CA-S30BK.
4. Adjust the volume level.

To cancel the AUX setting

Change the source by starting any one of the CA-S30BK's built in sound sources, such as the radio or CD player.

Recording

What can you record?
- **Tapes**
- **Radio**
- **CDs**
- **Microphone**
- **Connected source**

Recording onto cassette tape from any of the sound sources is easy and the CA-S30BK does most of the work. Just have a tape in deck B, have the source ready, make one or two settings, and you're ready to record.

For each source the procedure is a little different and now we'll explain just what to do for each one. If you forget, just go back to the section which has the specific procedures you need. But first, here are a few things to make your recordings better.

Things to Know before You Start Recording:

Reduce hiss— Dolby NR

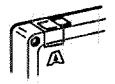
- ❑ Press DOLBY B NR — the indicator lights up — to reduce tape hiss, except when dubbing tapes since Dolby NR is inactive in dubbing mode regardless of the setting of DOLBY B NR. The dubbed tape automatically contains the same processing as the source tape.

Recording level

- ❑ The recording level, which is the volume at which the new tape is being made, is automatically set correctly, so it is not affected by the VOLUME control on the CA-S30BK. Thus, you can adjust the sound you are actually listening to without changing the recording.

Erasure protection

- ❑ Two small tabs on the back, one for side A and one for side B, can be removed to prevent accidental erasure or re-recording. To record on a cassette with the tabs removed, you must cover the holes with adhesive tape first. However, when a Type II tape is used, only cover part of the hole as shown, since the other part of the hole is used to detect the tape type.



Recording sound mode

- ❑ When recording, you can select the sound effects with the preset sound effect buttons to condition the music as it is recorded. But when recording using Auto Edit or CD Direct, once recording has started, these settings cannot be changed. When recording from tape deck A to deck B, the sound effects cannot be used, because the signal doesn't go through the amplifier first. This method gives you the highest quality dubbed tapes.

Usable tape type

- ❑ Type I and type II tapes can be used for recording. While type IV tapes can be played, type IV tapes cannot be used for recording on the CA-S30BK.

CAUTION: If recordings you make have excessive noise or static, the Unit may be too close to a TV which was on during the recording. Either turn off the TV or increase the distance between the TV and the CA-S30BK.

Standard recording: Any source to tape

Standard Recording

This is the basic method for recording any source. The CA-S30BK also has special ways for recording CD to tape, and tape to tape, which save you time and effort, as well as give you some special effects.
However, when you need to add a selection to a tape you have made, or are combining selections from several sources on one tape, use the method we describe here; just substitute the source you want, such as a tape in deck A, or CD, or radio in this procedure. You can also record from the microphone or an auxiliary source with this procedure.

Source to tape: Step by step

To Record Any Sound Source to Tape

Follow these steps to record from any sound source onto a tape in deck B.

1. Insert a blank or erasable tape into deck B.
2. Press REC PAUSE.
   The REC PAUSE indicator lights up.
3. Press REVERSE MODE if you want to record on both sides of the tape.
   The REVERSE MODE indicator lights up.
4. Prepare the source, for example, tuning in a radio station, loading a CD, turning on a connected VCR or turntable.
5. Press either ▷ to record on side A, or ◁ to record on side B of the tape, on deck B.

CD to tape recording: Introduction

CD to Tape Recording

There are three ways to record from CD to tape:

- ❑ **Standard Recording** described on the previous page.
- ❑ **CD Direct Recording** — Everything on the CD goes onto the tape in the order it is on the CD, or according to an order you have set in a program.
- ❑ **Auto Edit Recording** — Your CA-S30BK figures out which selections to put on which side of the tape, so a selection isn't cut off before it's finished when the tape runs out.

REW/CD Recording Step by step

REW/CD Recording

1. Insert a blank or erasable cassette in deck B.
   - ❑ If you want to record on both sides of the tape, press REVERSE MODE on the tape deck so that the REVERSE MODE indicator lights up.
2. Load a CD into the tray and press ≜ to close the tray.
3. Set the sound mode if you want, since the sound mode cannot be changed once recording starts.
4. **To record on the tape from its beginning,** press REW/CD REC on the CD player.
   The Unit will automatically rewind the tape to the beginning of side A, create a 10 second blank, turn on the CD and start recording.
   To record on the tape from any portion of tape rather than its beginning, press CD REC START on the CD player.
   Without rewinding the tape and creating a 10 second blank, the Unit turns on the CD and starts recording.
   - ❑ The CD REC START button is convenient for recording from many CDs.

   At the end of the tape, the CA-S30BK automatically goes back to the beginning of the last selection and re-records it, this time gently fading out at the end. If you selected the Reverse Mode, side B starts with the last selection on side A. (A 10 second blank is also created on the beginning of side B.)
   When the tape is finished, the Unit shuts off the CD and the tape deck.

To stop any time during the recording process
Press ■ on deck B.
In case of any operation during CD Recording, please use buttons on the Unit. (Don't press ones on the Remote Control.)

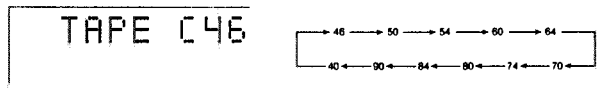
Auto Edit Recording: Introduction

Auto Edit Recording

Using Auto Edit, you can record the CD tracks to fit the tape, so a selection isn't cut off. Auto Edit is one of the best ways to copy all of a CD onto a tape.
Auto Edit programs the CD tracks in the numerical order. To prevent the end of the last track on side A from being cut off, the last track on side A is selected to fit on the remaining tape length.

Auto Edit Recording: Step by step

1. Insert a blank or erasable cassette in deck B.
   - ❑ If you want to record on both sides of the tape, press REVERSE MODE on the tape deck so that the REVERSE MODE indicator lights up.
2. Load a CD into the tray and press ≜ to close the tray.
3. Set the sound mode if you want, since the sound mode cannot be changed once recording starts.
4. Press AUTO EDIT on the CD player.
   "EDIT" appears on the display and then the minimum standard tape length to use for this CD appears.
   - ❑ You can select a different length of tape, depending on the actual size of the tape you are using, from ten possibilities programmed into the CA-S30BK: 40, 46, 50, 54, 60, 64, 70, 74, 80, 84, 90. Cycle through these choices using EDIT TIME |◄◄ or ►►| (|◄◄ or ►►| on the Remote) until you find the length closest to your tape's actual length.
     - If you pick a tape length shorter than the total playing time of the CD, the last tracks on both sides of the tape will be faded out as the tape ends.



5. Press SIDE A/B.
   The display shows which tracks will go on side A and which on side B. Each time you press SIDE A/B, the display switches between A and B.
6. Press REW/CD REC on the CD player.
   The Unit will automatically rewind the tape to the beginning of side A, create a 10 second blank, turn on the CD and start recording. (A 10 second blank is also created on the beginning of side B.)

To stop any time during the recording process
Press ■ on deck B.

Tape to tape dubbing: Introduction

Tape to Tape Recording (Dubbing)

Recording from one tape to another is called dubbing.
You can dub at regular speed for the best possible quality, or with a slight loss in sound quality you can dub at high speed. With high speed it takes only about half the time to copy a tape.

- ❑ To dub both sides of a tape, start from side A for both deck A and deck B, and press REVERSE MODE so that the REVERSE MODE indicator lights up.
- ❑ It is preferable that the type of tape (Normal or CrO_2) you record *from* be the same as the type you record *onto*.

Regular speed dubbing: Step by step

Regular Speed Dubbing

1. Insert a source cassette you want to copy *from* into deck A for playback.
2. Insert a bank or erasable cassette you want to copy *onto* into deck B for recording.
3. Press REC PAUSE on deck B.
4. Press ▷ (or ◁) on deck B.
   Recording starts.
   - ❑ To advance the leader tape, start recording first and wait about 10 seconds before starting the deck A.
5. Press ▷ (or ◁) on deck A.
   Deck A starts playing.

To stop any time during the dubbing process
Press ■ on both deck A and deck B.

High speed dubbing: Step by step

High Speed Dubbing

Although the quality of the dubbed tape is a little less, high speed dubbing is a very convenient way to record from one tape to another.

1. Insert a source cassette you want to copy *from* into deck A, and a blank or erasable cassette to be copied *onto* in deck B.
2. For each deck, select the side (A or B) to start with.
   To change the side, press ◁ or ▷ and then quickly press ■ on the same deck.
   - ❑ The tape will travel in the direction of the lit arrow indicator on the ◁ or ▷ button for each deck.
3. Press HIGH SPEED DUBBING on the tape deck.
   Both decks start, deck A playing and deck B recording.

To stop any time during the dubbing process
Press ■ on deck B.

To record selections from several different tapes during high speed dubbing
When you want to take selections from several different tapes and combine them on one tape during high speed dubbing, follow these steps:

1. Press ■ on deck A.
   - ❑ This causes deck A to stop, so you can change tapes, and deck B makes a 4 second blank and pauses.
     - If you don't want to make a 4 second blank, press REC PAUSE before pressing ■ on deck A
2. Change the tape in deck A.
3. Press HIGH SPEED DUBBING to start deck A playing and deck B recording again.
   - ❑ The sound you hear is strange because it is much faster than usual, and you may not want to listen to it. Turn it down with the VOLUME control, or press FADE MUTING on the Remote.
   - ❑ You can also listen to another source such as the radio or the CD player, just as if you weren't dubbing.

☞ Dolby NR is inactive in dubbing mode regardless of the setting of DOLBY B NR. The dubbed tape automatically contains the same processing as the source tape.
☞ You cannot dub using the sound modes such as STADIUM, DANCE CLUB, HALL, etc.
☞ During high speed dubbing, if you listen to a CD with Auto Power Off turned on, the whole Unit, including the tape decks, may turn off when the CD ends. It will interupt the dubbing.

How to Set the Clock and Use the Timers

Four Timers:
•REC
•DAILY
•SLEEP
•AUTO POWER OFF

The timers let you control recording and playing functions automatically. With the CA-S30BK they are particularly easy to set and use. Four types of timers are available:

- ❑ **REC (Recording) Timer**—unattended recording of radio broadcasts. You can set the starting time and recording duration.
- ❑ **DAILY Timer**—Wake up to music from any source.
- ❑ **SLEEP Timer**—Fall asleep and have your CA-S30BK turn off automatically after a certain length of time.
- ❑ **AUTO POWER OFF**—Automatically turns off the Unit when the CD or tape finishes.

IMPORTANT! Set your clock!

Clock Setting

The timers depend on the clock: If the clock is right, the timers will work like you expect, but if the time is incorrect on the clock then the timers will also be incorrect.

Notice: The clock must be set, or the timers cannot be set!

So, let's set the clock first.

1. Press CLOCK ADJUST.
2. Set the hour by pressing HOUR.
   Each time you press it, the hour advances by one. Hold the button down, and the clock will advance continuously as long as HOUR is held down.
3. Set the minutes by pressing MINUTE.
   Each time you press MINUTE the minutes advance by one. Hold the button down, and the minutes advance in ten minute increments as long as MINUTE is held down.
4. Press CLOCK ADJUST again and the clock is set and starts from zero seconds.

☞ If there is a power failure, the clock loses its setting, the display shows "0:00", and it must be reset.

Recording when you're not there

Setting the REC (Recording) Timer

With the Recording Timer you can make a tape of a radio broadcast automatically whether or not you are there. For the timer to work correctly, you need to make sure of the following in addition to setting the time for the radio and tape recorder to come on:

- ❑ You can set the Recording Timer whether the Unit is on or off.
- ❑ The tape you want to record onto must be in deck B.
- ❑ The radio station whose program you want to tape must be the last one played before timer comes on.

Follow this procedure to set the Recording Timer

1. Press REC so that "REC TIMER" blinks on the display. As long as it is blinking, you can continue with the setting process.
   - ❑ If you wait too long, and it stops before you are done, just press REC twice and start over.
2. Set the time you want the radio to come on and the tape in deck B to start recording.
   - ❑ Press HOUR to set the hour and MINUTE to set the minute.
3. Press REC TIME/SOURCE to set the length of time for the recording.
   - ❑ Each time you press this button, the duration increases by one minute. If you hold the button down, it will advance in ten minute increments up to 120 minutes, which is the maximum time you can set.
   - ❑ At the end of the set length of time the radio and deck B will shut off.
     - If you set no time, but leave the display showing —:—, the CA-S30BK will not shut off, but keep playing until you shut it off.
4. Press REC again, or wait eight seconds. "TIMER OK" appears for a while, then "REC TIMER" lights up on the display.
   The Unit will memorize the setting. When the set time comes, the CA-S30BK turns on and records the last station tuned when the Unit was last turned off.
   - ❑ If you press any button while the Recording Timer is being activated, the recording will stop.

Before the set time comes

- ❑ Check that tape direction is correct. This is important especially when Reverse Mode is off.
- ❑ Set Reverse Mode on if you want to record on both sides of the tape.
- ❑ Select the sound mode if you want to record with one of the sound mode (STADIUM, DANCE CLUB, HALL, etc.).
- ❑ Set the VOLUME control to MIN so that no sound comes out from speakers when the recording timer switches on the CA-S30BK. This is important especially if you will be out during the recording.

To change the Recording Timer setting
Press REC twice ("REC TIMER" reappears) and make any changes you want.

To cancel the Recording Timer setting
Press REC button again so that "REC TIMER" goes off on the display.

Wake up to music with the DAILY Timer

Setting the DAILY Timer

With this timer you can wake up to music from a CD, tape or your favourite radio program.

- ❑ You can set the DAILY Timer whether the Unit is on or off.

Follow this procedure to set the DAILY Timer

1. Press DAILY so that "DAILY TIMER" blinks on the display.
2. Set the time you want the Unit to turn on.
   - ❑ Press HOUR to set the hour and MINUTE to set the minute.
3. Press REC TIME/SOURCE to set the source.
   - ❑ Each time you press this button, the display shows one of the four possible sources: CD, TAPE, FM or AM. Leave the one you want lit.
     - If you select AM or FM as the source, the last played station is the one which comes on at the set time.
     - If the CD is the source, you can designate the starting track up to the 99th track by using EDIT TIME I◄◄ or ►►I (I◄◄ or ►►I on the Remote).
4. Press DAILY again, or wait eight seconds. "TIMER OK" appears for a while, then "DAILY TIMER" lights up on the display.
   The Unit will memorize the setting.
   When the set time comes, the CA-S30BK turns on ("DAILY" appears on the display), plays the source you have selected for 60 minutes, and then the Unit turns off.
   - ❑ If you press any button while the DAILY Timer is being activated, the Unit will not turn off automatically after 60 minutes.

Before turning off the Unit

- ❑ If the source is tape:
  - Check that the tape transport direction is correct. This is important especially when Reverse Mode is off.
  - Deck A has priority, so if tapes are in both deck, the tape in deck A plays first.
  - Set Reverse Mode on if you want play both sides of the tape.
- ❑ Select the sound mode if you want to listen using a sound mode (STADIUM, DANCE CLUB, HALL, etc.).
- ❑ Set the volume to an appropriate level.

To change the DAILY Timer setting
Press DAILY twice ("DAILY" reappears) and make any changes you want.

To cancel the DAILY Timer setting
Press DAILY button again so that "DAILY TIMER" goes off on the display.

Sleep Timer: turns the Unit off automatically after a set time

Setting the SLEEP Timer

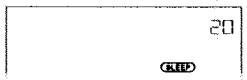
Use the SLEEP timer to turn the Unit off after a certain number of minutes when it is playing. Using this timer, you can fall asleep to music.

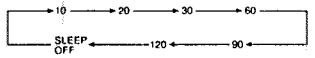
- ❑ You can only set the SLEEP Timer when the CA-S30BK is on and a source is playing.

Follow this procedure to set the SLEEP Timer

With the CA-S30BK on and a source playing, press SLEEP. "SLEEP" starts blinking on the display.

- ❑ Each time you press SLEEP while "SLEEP" is blinking, it changes the number of minutes shown on the display in this sequence:





When the number of minutes you want shows on the display, just wait 8 seconds until "TIMER OK" appears and "SLEEP" stops blinking, but remains lit.
The Unit will now turn off after the number of minutes you set.

To change the SLEEP Timer setting
Press SLEEP until the number of minutes you want appears on the display.

To cancel the SLEEP Timer setting
Press SLEEP until "SLEEP" goes off on the display.
Turning off the Unit also cancels the SLEEP Timer.

Timer Priority

Since each timer can be set independently, you may have wondered what happens if the settings overlap: for instance, suppose you set the Recording Timer to record a broadcast from 1 am to 1:30 am, and then you set the sleep timer at midnight to run until 2 am. Will you still get your radio program recorded? Here are the priorities for each timer:

- ❑ The Recording Timer always has priority. This means that:
  - If another timer is set to come on during a time the Recording Timer is operating, the other timer just won't come on at all, so you will always get the entire program on tape.
  - If the Recording Timer is set to come on while another timer is being activated, the other timer will shut off 10 seconds before the Recording Timer is set to turn on, and the Recording Timer will then take over.
- ❑ The SLEEP Timer has priority over the DAILY Timer. This is important because if you set the SLEEP Timer to start before and then end after the DAILY Timer would start, the DAILY Timer doesn't come on. So if you want your alarm to go off as scheduled, be sure the SLEEP Timer shuts off before the DAILY Timer is to turn on the Unit.

Auto Power Off: turns off your CA-S30BK automatically

Turning Off the CA-S30BK Automatically

When playing either a tape or a CD, Auto Power Off will shut the Unit off when the tape or CD comes to the end. Although Auto Power Off is very useful for shutting off the CA-S30BK at night, you can also use it if you think you might forget to turn the Unit off when leaving the house or your room at other times of day.

To use Auto Power Off:
Press AUTO POWER OFF so that "AUTO POWER OFF" lights up on the display.

To cancel Auto Power Off:
Press AUTO POWER OFF again so that "AUTO POWER OFF" disappears on the display.

Important information on using Auto Power Off

- ❑ Even if the Tuner Entry function is on, Auto Power Off will not switch at the end of the CD or tape to the radio as is usual with Tuner Entry on. Instead, Auto Power Off shuts everything off.
- ❑ If you press AUTO POWER OFF while the CD is playing in repeat mode ("REPEAT" or "REPEAT 1" lights on the display), repeat mode will be canceled and Auto Power Off will be able to work.
- ❑ If you press REPEAT to set the CD player in repeat mode while Auto Power Off is on ("AUTO POWER OFF" lights on the display), Auto Power Off will be canceled even though "AUTO POWER OFF" remains lit on the display.
- ❑ If you press AUTO POWER OFF while the tape is playing:
  - If Reverse Mode is off (the REVERSE MODE indicator is not lit), the Unit turns off when the current playing side finishes
  - If Reverse Mode is on (the REVERSE MODE indicator lights up), the Unit plays the side currently playing, reverses and plays the other side, then shuts off.

Singing Along

What is Vocal Masking?

Have you ever wished you could sing with a real band, in place of the lead singer? The VOCAL MASKING (voice canceller) button lets you use regular tapes, CDs or records as sources of sing-along music. When you press VOCAL MASKING, the lead vocal is reduced, and you can replace it by singing into the microphone as the music plays. No microphone is supplied with the CA-S30BK, so you can select your own from the many kinds available. Remember: the sound quality is greatly affected by the quality of the microphone.

How to Sing Along with Vocal Masking:

Singing-Along Procedure

1. Turn the MIC LEVEL control all the way counterclockwise to the MIN position.
2. Attach the microphone (not supplied) by plugging it into the MIC jack.
3. Start the source—CD, Tape, connected VTR, Turntable.
4. Press VOCAL MASKING—the indicator will light up.
5. Now adjust the volume of the source with the main VOLUME control, and the volume of your voice with the MIC LEVEL control as you sing into the microphone.

Recording Your Singing-Along

Recording a Singing- Along Session

You can record a singing-along session under certain conditions.

- ❑ You cannot record your singing-along when the main source is a tape in deck A.

Here's the procedure for recording your singing-along:

1. Put the cassette you want to record onto in deck B.
2. Press REC PAUSE—see Recording, page 13 if you need more information about tape recording.
3. Follow the above procedure "How to Sing Along with Vocal Masking."
4. Press Play Forward ▷ (or Play Reverse ◁) on deck B, and deck B will start recording the source together with your voice in place of the lead vocal.

Important information about Vocal Masking

- ❑ Because the radio signal is not as reliable as signals coming from a tape or CD, you may not always get satisfactory results using the radio as a source for Vocal Masking.
- ❑ Some tapes and CDs are better sources for singing along than others.
  - Mono sources are not suitable for Vocal Masking.
  - On sources with duets, strong echoes, a chorus, or with only a few instruments, the singer's voice may not be completely reduced.
  - Poorly dubbed tapes may not work well for Vocal Masking.

Recording from the Microphone

Two ways of recording with the microphone

You can use the microphone for two kinds of recording:

- ❑ Microphone mixing—Sound going into the microphone is mixed with sound sent to the tape in deck B from some other source, such as the CD, or radio.
- ❑ Regular recording—Only sound picked up by the microphone is recorded.

Microphone Mixing

1. Insert a blank or erasable cassette you want to record onto in deck B.
2. Connect the microphone to the MIC jack.
3. Press REC PAUSE so that the REC PAUSE indicator lights up.
4. Start the source (radio, CD, VCR or turntable) and set the VOLUME control.
5. Adjust the microphone volume with the MIC LEVEL control.
6. Press ▷ (or ◁) on deck B, and speak or sing into the microphone.
   Both sound from the microphone and from the playing source is recorded.

Regular Microphone Recording

1. Insert a blank or erasable cassette you want to record onto in deck B.
2. Connect the microphone to the MIC jack.
3. Press REC PAUSE so that the REC PAUSE indicator lights up.
4. Press ▷/❚❚ on the CD player and then press ■/CLEAR to stop the CD player.
5. Adjust the volume of the microphone with the MIC LEVEL control.
6. Press ▷ (or ◁) on deck B
   Whatever sounds the microphone picks up are recorded.

IMPORTANT!

- To prevent howling and squealing when using the microphone, adjust the MIC LEVEL control and the VOLUME control, and try not to point the microphone at the speakers.
- When you are not using the microphone, keep the MIC LEVEL control set to MIN. It is best to disconnect the microphone when you will not be using it.

How to Use the Remote Control

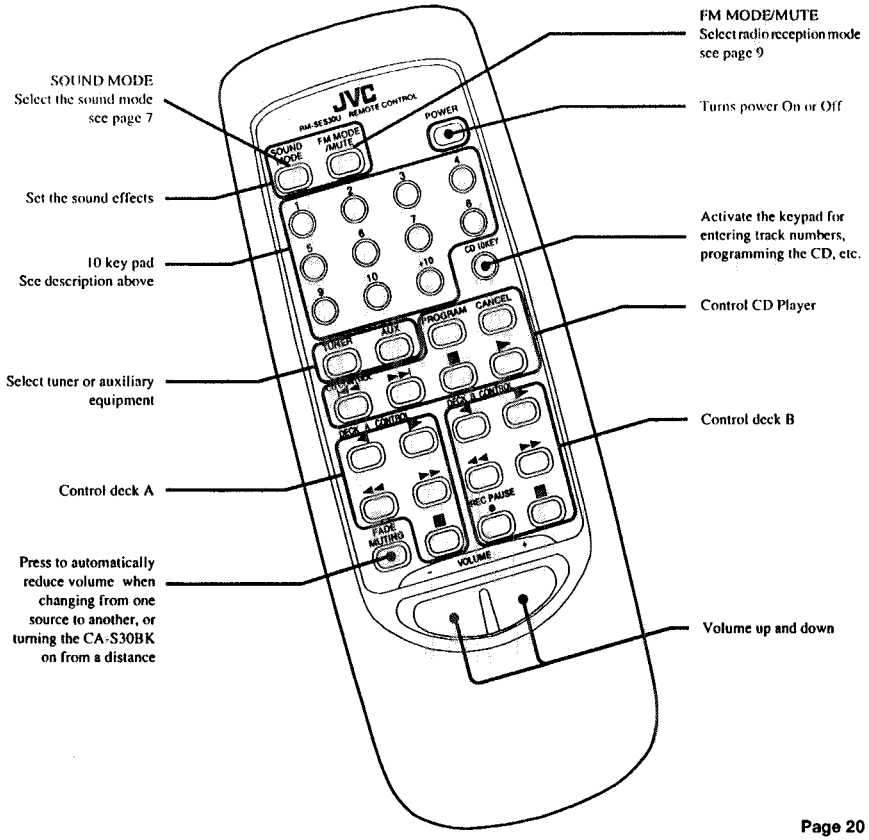
The Remote Control makes it easy to control many of the functions of the CA-S30BK from a distance of up to 6 m away. You need to point the remote sensor at the CA-S30BK front panel.

- ❑ Most of the buttons on the Remote Control do just what the ones on the CA-S30BK do.
- ❑ A few functions are available only by using the Remote Control, and those are described below.
- ❑ The buttons whose names or marks are printed in blue can be used for the One Touch Operation.

Using the 10 Key Pad

The 10 key pad is used to specify a CD track or the number you have assigned to a preset radio station. To enter a number using the 10 key pad follow these steps:

- ❑ Before using the 10 key pad, make sure which the 10 key pad functions for, the CD player or tuner. This is depends on which button on the Remote you have pressed before 10 key pad. For example, if you press AM or FM before 10 key pad, it can select a preset station. If you press ► for the CD player, it can select a CD track.
- ❑ For numbers between 1 and 10, just press the button with the number you want.
- ❑ For numbers from 11 to 20, first press the +10 key, then the one's digit of the number you want — to get 15, first press +10, then 5. For 20 press +10 and 10 .
- ❑ For numbers from 21 to 30, press the +10 key twice; then press the one's digit — to get 25, press +10 +10 and 5 . For 30, press +10 +10 and 10
- ❑ For numbers from 31 to 40, follow the same procedure, only press the +10 key three times, then the one's digit — to get 32, press +10 +10 +10 and 2.

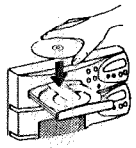


Care and Maintenance—General Notes

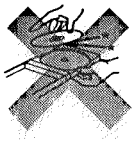
Compact Discs

Handle your compact discs, cassette tapes, and tape deck carefully, and they will last a long time.

- Remove the CD from the case by holding it at the edges while pressing the center hole lightly.
- Do not touch the shiny surface of the CD, or bend the CD.



- Place the CD into the open tray with the label facing up.



- Put the CD back in its case after use to prevent warping.
- Be careful not to scratch the surface of the CD when placing it back in the case.
- Avoid exposure to direct sunlight, temperature extremes, and moisture.

- A dirty CD may not play correctly. If a CD does become dirty, wipe it with a soft cloth in a straight line from center to edge.

CAUTION: Do not use any solvent (for example, conventional record cleaner, spray, thinner, benzine, etc.) to clean a CD.

On Moisture Condensation

Moisture may condense on the lens inside the unit in the following cases:

- After starting the heating in the room.
- In a damp room.
- If the unit is brought directly from a cold to a warm place.

Should this occur, the unit may malfunction. In this case, leave the unit turned on for a few hours until the moisture evaporates, unplug the AC power cord, and then plug it in again.

In general, you will have the best performance by keeping your tapes, CDs, and the mechanism clean.

- Store tapes and CDs in their cases, and keep them in cabinets or on shelves.
- Keep the tape deck tape carriers and the CD tray closed when not in use.

Cassette Tapes

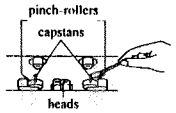
- If the tape is loose in its cassette, take up the slack by inserting a pencil in one of the reels and rotating.
- If the tape is loose, it may get stretched, cut, or caught in the cassette.

- Do not touch the tape surface.

- Do not store the tape:
  - In dusty places
  - In direct sunlight or heat
  - In moist areas
  - On a TV or speaker
  - Near a magnet

Tape Deck

- If the heads, capstans, and pinch-rollers of the tape deck become dirty, the following will occur:
  - Impaired sound quality
  - Discontinuous sound
  - Fading
  - Incomplete erasure
  - Difficulty recording
- Clean the heads, capstans, and pinch-rollers using a cotton swab moistened with alcohol.



- If the heads become magnetized, it will produce noise or loose high frequencies.
- To demagnetize the heads, turn off the Unit, and use a head demagnetizer (available at electronics and record shops).

Description of Major LSIs

■ HD4074710A36FS (IC781) : CD/Tuner controller

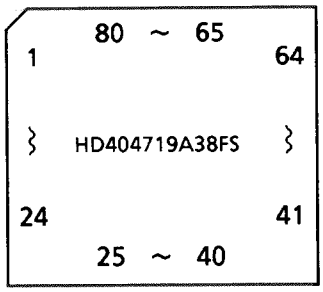
1. Terminal Layout

2. Terminal Functions

Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1~4		–	GND	38	$\overline{\text{STEREO}}$	I	Input for 'STEREO' indication
5	RESET	I	Reset signal input	39	$\overline{\text{TUNED}}$	I	Input for 'TUNED' indication
6	OSC 1	I/O	Oscillation terminal	40	$\overline{\text{INH IN}}$	I	Inhibition signal
7	OSC 2	I/O	Oscillation terminal	41~45		–	+5V
8~10		–	GND	46	DEF.SW	O	"H" with focus searching
11	$\overline{\text{TEST}}$	–	pull up	47	$\overline{\text{XRST}}$	O	Reset signal output
12	VCC	–	Power supply	48		–	+5V
13	P.IND	O	Output terminal for indication of cd	49		–	GND
14	$\overline{\text{P.OFF}}$	O	Power control signal to cd section	50	LOCK	I	Input terminal for LOCK signal
15~18		–	+5V	51	FOK	I	Input terminal for forcus ok signal
19	KEY ON	I/O	"H" with key on	52	SENS	I	Input terminal for sens signal
20	DCS OUT	O	Compulink signal output	53	$\overline{\text{L.ON}}$	O	Laser control signal
21	DCS IN	I	Compulink signal input	54	XCX	O	"H" with tracking loop is off
22	CLK	O	Clock to transmit data to IC802 (FL driver)	55	OPEN	O	"H" with the tray opening
23	DATA	O	Data output to IC802 (FL driver)	56	CLOSE	O	"H" with the tray closing
24	CS	O	Chip select signal to IC802	57	$\overline{\text{CL SW}}$	I	"L" with the tray closed
25		–	+5V	58	$\overline{\text{OP SW}}$	I	"L" with the tray opened
26	MUTE	O	Muting signal to TUNER section	59	$\overline{\text{CD TEST}}$	–	Test mode terminal (T.P.2)
27	MONO	–	Not used.	60	SCOR	I	Subcord synchronizing signal is input
28	F OUT	O	Frequency output (TP801)	61	CLOK	O	Clock for data transmission
29	T.CLK	O	Clock to transmit data to IC102	62	XLAT	O	Latch signal for data transmission
30	T.DATAO	O	Data output to IC102	63	DATA	O	Serial data for signal processor of cd
31	T.CE	O	Chip select signal to IC102	64	SQSO	I	Input of Q-data of subcode
32	T.DATAI	I	Data from IC102	65	SQCK	O	Clock output for SQSO transmission
33	CS 0 BAND0	–	Not used.	66~73		–	GND
34	CS 1 BAND1	–	Not used.	74	AMP RESET	O	Reset signal to IC901
35	CS 2 9K/10K LW	–	"H" with 9K	75	AD VCC	–	Power supply
36	CS 3 GI	–	Not used.	76~77	IN1~IN2	I	Detecting buttons and switches
37	$\overline{\text{TUNER TEST}}$	–	TEST mode terminal (TP801)	78~80	IN3~IN5	I	Detecting buttons and switches

■ HD404719A38FS (IC901) : Deck controller

1. Terminal Layout



2. Terminal Functions

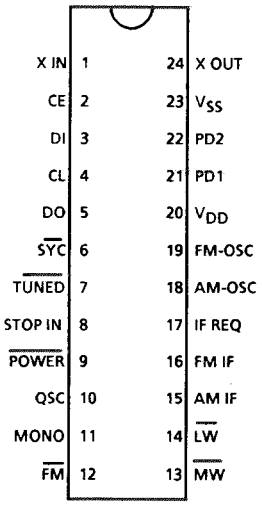
Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	IN11	I	Leaf switch voltage	41	BFR	O	Reel motor control signal (forward)
2	IN12	I	Leaf switch voltage	42	BRR	O	Reel motor control signal (reverse)
3	PRT	I	Input from protector circuit	43	BRC	O	Cam motor control signal (counterclockwise)
4	AD GND	—	Ground for A/D converter	44	BFC	O	Cam motor control signal (clockwise)
5	RESET IN	I	Reset signal from IC801	45	AFR	O	Reel motor control signal (forward)
6	OSC1	—	Oscillasion terminal	46	ARR	O	Reel motor control signal (reverse)
7	OSC2	—	Oscillasion terminal	47	ARC	O	Cam motor control signal (counterclockwise)
8	LG	—	GND	48	AFC	O	Cam motor control signal (clockwise)
9	—	—	Connected to GND	49	—	—	Connected to GND
10	—	—	Connected to GND	50	ACS2	I	Input of mechanism information (deck A)
11	$\overline{\text{TEST}}$	—	Connected to +5V	51	ACS1	I	Input of mechanism information (deck A)
12	VCC	—	+5V	52	ACS0	I	Input of mechanism information (deck A)
13	$\overline{\text{DCS IN}}$	I	Compulink signal input	53	BCS2	I	Input of mechanism information (deck B)
14	$\overline{\text{DCS OUT}}$	O	Compulink signal output	54	BCS1	I	Input of mechanism information (deck B)
15	FADE	O	Fade recording control	55	BCS0	I	Input of mechanism information (deck B)
16	BIAS	O	Bias circuit control (on / off)	56	SMT	O	Muting control
17	ACAP	O	Drive signal for the capstan motor(A)	57	$\overline{\text{G}}$	O	Output control to IC905,906
18	BCAP	O	Drive signal for the capstan motor (B)	58	RCK	O	Data output to IC905,906
19	AMC	O	Speed control signal for deck A	59	SI	O	Strobe output to IC905,906
20	BMC	O	Speed control signal for deck B	60	AD SCK	O	Clock output to IC905,906
21	APLS	I	Input of reel pulse (Deck A)	61	RMIN	I	Input from remote signal detector
22	BPLS	I	Input of reel pulse (Deck B)	62	SPCLK	O	Clock output to IC803
23	RMT	O	Recording mute control	63	SPDATA	O	Data output to IC803
24	NR	O	Noise reduction control	64	CS	O	Chip select signal to IC803
25	NR REC	O	Mode conrol of NR (REC/PLAY)	65	MSI	I	Blank detection terminal for music scanning
26	$\overline{\text{H.S.D.}}$	O	Control signal for high-speed dubbing	66	CLK	O	Clock output to IC403 (Tone selector)
27	$\overline{\text{PBCR}}$	O	Playback equalizer control	67	STB	O	Strobe output to IC403 (Tone selector)
28	AI.S.BASS	O	AI.S.BASS indication signal and control.	68	DATA	O	Data output to IC403 (Tone selector)
29	LC	O	Rec. EQ control (Normal speed : CrO_2)	69	POWER	O	Power control (Power on/off)
30	HC	O	Rec. EQ control (High speed : CrO_2)	70	SPK	O	Speaker relay control
31	HN	O	Rec. EQ control (High speed : Normal)	71	VOL DOWN	O	Master volume control
32	$\overline{\text{BCR}}$	O	L' when using high position tape	72	VOL UP	O	Master volume control
33	KARAOKE		KARAOKE Indication signal	73	A PLAY	O	H' with deck A playing
34	DISCO		DISCO Indication signal	74	PB MUTE	O	Muting control for cassette decks
35	HALL		HALL Indication signal	75	AD VCC	—	+5V
36	STADIAM	O	STADIAM Indication signal	76	IN 6	I	AMP switch voltage
37	BGM	O	BGM Indication signal	77	IN 7	I	AMP switch voltage
38	CAR	O	CAR Indication signal	78	IN 8	I	DECK switch voltage
39	H.PHONE		H.PHONE Indication signal	79	IN 9	I	DECK switch voltage
40	STD-BY		STD-BY Indication signal	80	IN 0	I	DECK switch voltage

■ LC7218 (IC102) : PLL Synthesizer

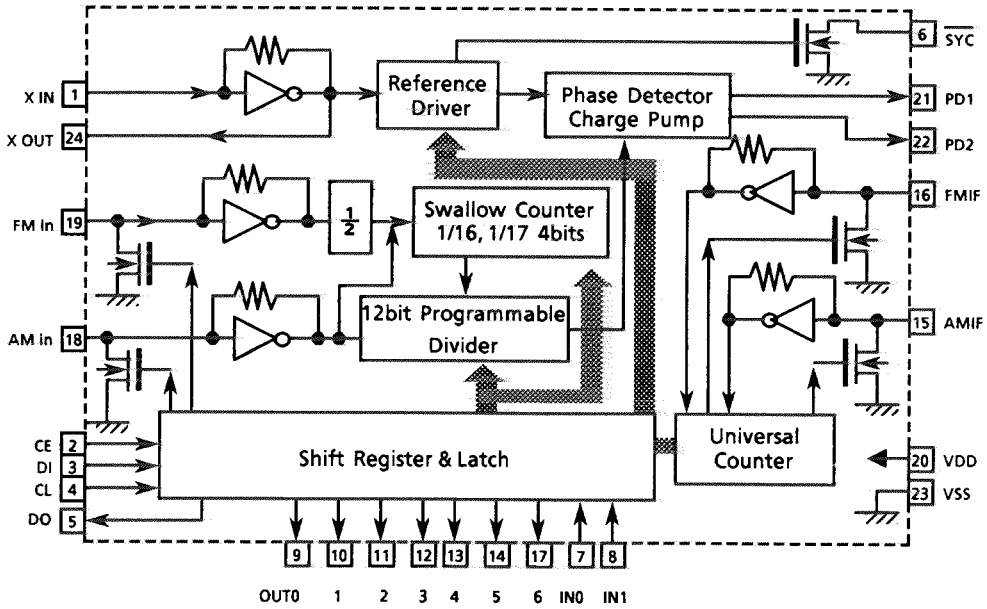
1. The main function descriptions

(1) It makes the local oscillation frequency by the control data from IC901.
(2) Decode the control signal and transmit the signal for receiving conditions.
(3) For the best tuning, count the internal-frequency and transmit the data to IC901.

2. Terminal Layout



3. Block Diagram



4. Pin Functions

Pin No.	Symbol	I/O	Functions
1,24	X in , X out	I/O	Crystal oscillator (7.2MHz).
2	CE	I	Fix the chip enable to "H" when inputting (DI) and outputting (DO) the serial data.
3	DI	I	Receive the control data from the controller (IC801).
4	CL	I	This clock is used to synchronize data when transmitting the data of DI and DO.
5	DO	O	Transmit the data from LC7218 to the controller which is synchronized with CL.
6	SYC	—	Not used.
7	TUNED	I	Receive the tuned signal from IC104 (LA1266A).
8	STOP IN	—	Connected to GND
9	POWER	—	Not used.
10	QSC	—	Not used.
11	MONO	O	It is "H" on FM-monaural, "L" on FM-Stereo.
12	FM	O	It is "L" on FM mode.
13	MW	O	It is "L" on MW mode.
14	LW	O	It is "L" on LW mode.
15	AM-IF	I	Universal counter input for AM-IF from IC104 (LA1266A).
16	FM-IF	I	Universal counter input for FM-IF from IC104(LA1266A).
17	IF REQ	O	Output the "IF-signal request" to IC104 when the pin-7 (tuned in) goes to "H".
18	AM OSC	I	Input the local oscillator signal of AM.
19	FM OSC	I	Input the local oscillator signal of FM.
20	V_{DD}	—	This is a terminal of power supply.
21	PD1	O	PLL charge pump output : When the local oscillator signal frequency is higher than the reference frequency high level signals will output. When it is lower than the reference frequency, low level signals will output. When it is same as reference frequency signals, it will be floating.
22	PD2	—	Not used.
23	Vss	—	Connected to GND

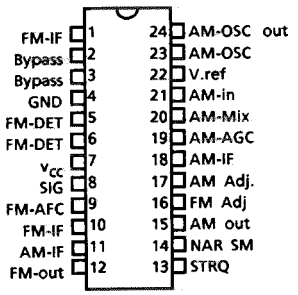
■ LA1266A (IC104) : FM AM IF AMP & detector

1. The main function descriptions

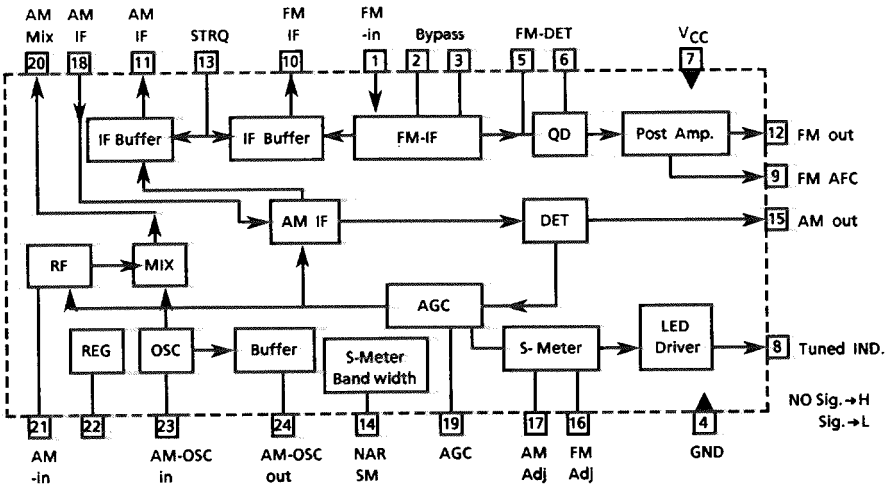
(1) Amplify and detect of FM intermodulation frequencies.

(2) It has local oscillator and mixer for AM, and amplify the AM-IF signal.

2. Top View



3. Block Diagram



4. Pin Function Description

Pin No.	Symbol	I/O	Functions and Operations
1	FM IF	I	This is an input terminal of FM IF Signal.
2, 3	Bypass	—	Bypass of FM IF Amp.
4	GND	—	This is the device ground terminal.
5, 6	FM DET	—	FM detect transformer.
7	V_{CC}	—	This is the power supply terminal.
8	SIGNAL	O	Mute drive and signal stop drive output when tuning. Active Low
9	FM AFC	O	This is an output terminal of voltage for FM - AFC.
10	FM IF	O	When the IF REQ signal of IC251(LC7218) applies to pin13, the signal of FM IF outputs.
11	AM IF	O	When the IF REQ signal of IC251(LC7218) applies to pin13, the signal of AM IF outputs.
12	FM out	O	FM detection output.
13	STRQ	I	The IF-signals come out from pin10 (FM-IF) or pin11 (AM-IF) while this terminal goes to "High".
14	NAR SM	—	Control the Band-width of AM signal meter.
15	AM out	O	AM detection output.
16	FM Adj	—	For adjust the stop level (or mute level) of FM.
17	AM Adj	—	For adjust the stop level (or mute level) of AM.
18	AM-IF	I	Input of AM IF Signal.
19	AM-AGC	I	This is an AGC voltage Input terminal for AM.
20	AM-MIX	O	This is an output terminal for AM mixer.
21	AM-IN	I	This is an input terminal for AM RF Signal.
22	V.REF	—	Control the Band-width of FM signal meter.
23	AM-OSC	—	This is a terminal of AM Local oscillation circuit.
24	AM-OSC out	O	AM Local Oscillation Signal output.

■ LA3401 (IC105) : FM MPX Detector

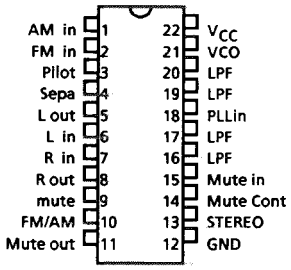
1. The main function descriptions

(1) Detect the FM Multiplex Signal (Stereo signal).

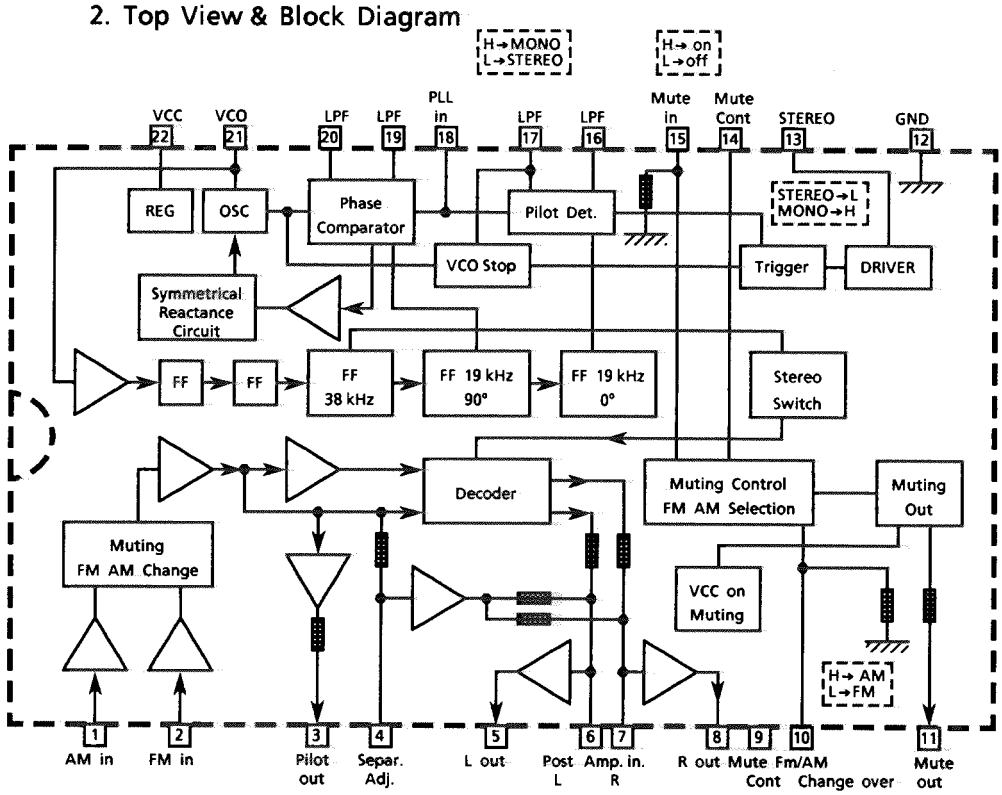
(2) When receiving FM Stereo Signal, it outputs the signal for indicator.

(3) AM/FM Audio Amplifier.

(1) Terminal Layout



2. Top View & Block Diagram

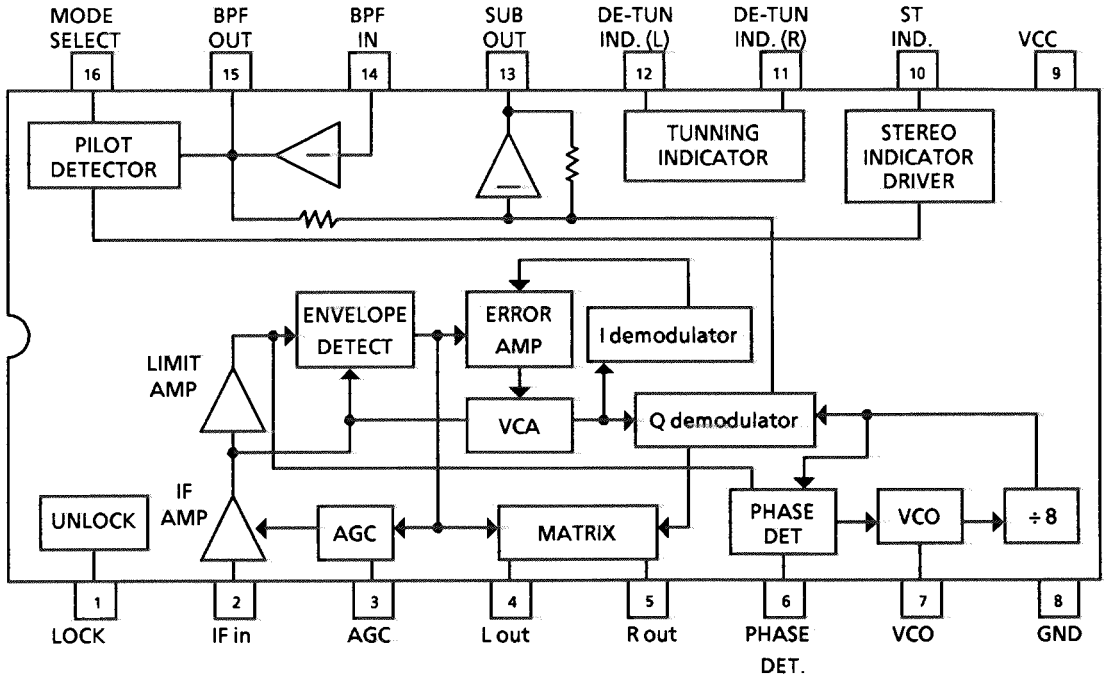


3. Pin Function Description

Pin No.	Symbol	I/O	Functions and Operations
1	AM in	I	This is an input terminal for AM detection signal.
2	FM in	I	This is an input terminal for FM detection signal.
3	Pilot out	O	Output of MPX pilot signal (Connect to Pin18).
4	Sepa. Adj.	---	Separation adjustment.
5	L. out	O	Left channel signal output.
6	L	O	Reversal output of Pin5.
7	R	O	Reversal output of Pin8.
8	R out	O	Right channel signal output
9	Mute Cont	---	The mute time is controlled by the connected capacitor when turning the power switch on.
10	FM/AM	I	Change over the FM/AM input. "H" : AM, "L" : FM
11	Mute out	---	Not use
12	GND	---	Ground terminal.
13	Stereo	O	Stereo indicator output. Stereo : "L", Mono : "H"
14	Mute Cont	---	The mute time is controlled by the connected capacitor when changing over the FM/AM .
15	Mute in	I	MutE signal input. "H" : Mute on, "L" : Mute off.
16	LPF	---	Low pass filter of pilot detector.
17	LPF	---	While this terminal goes to "H", the VCO stop.
18	Pilot in	I	PLL input.
19	LPF	---	Low-pass filter of PLL.
20	LPF	---	Low-pass filter of PLL.
21	VCO	I	Voltage controlled oscillator terminal.
22	V_{CC}	---	Power supply.

TA8124P (IC110) : Stereo Decorder

1. Internal Block Diagram



2. Terminal Functions

Pin No.	Symbol	I/O	Function
1	LOCK	--	Terminal for lock detect
2	IF in	I	Input terminal of AM IF signal
3	AGC	--	Terminal to the automatic gain controller
4	L out	O	Audio signal output
5	R out	O	Audio signal output
6	PHASE DET.	O	Phase detector
7	VCO	--	Voltage controlled oscillator terminal
8	GND	--	GND
9	VCC	--	VCC
10	ST IND.	--	Insication control signal for "STEREO"
11	DE-TUN IND. (H)	--	Not used
12	DE-TUN IND. (L)	--	Not used
13	SUB out	O	SUB signal output
14	BPF in	I	Input terminal to the low pass filter
15	BPF out	O	Low pass filter output
16	MODE SELECT	I	Monanral contro signal input

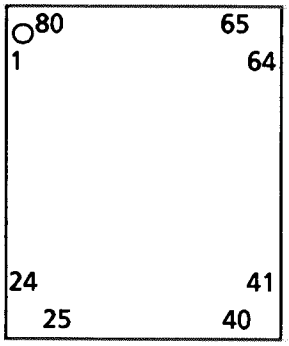
■ CXD2500BQ(IC701) : DIGITAL SIGNAL PROCESSOR

1. Outline

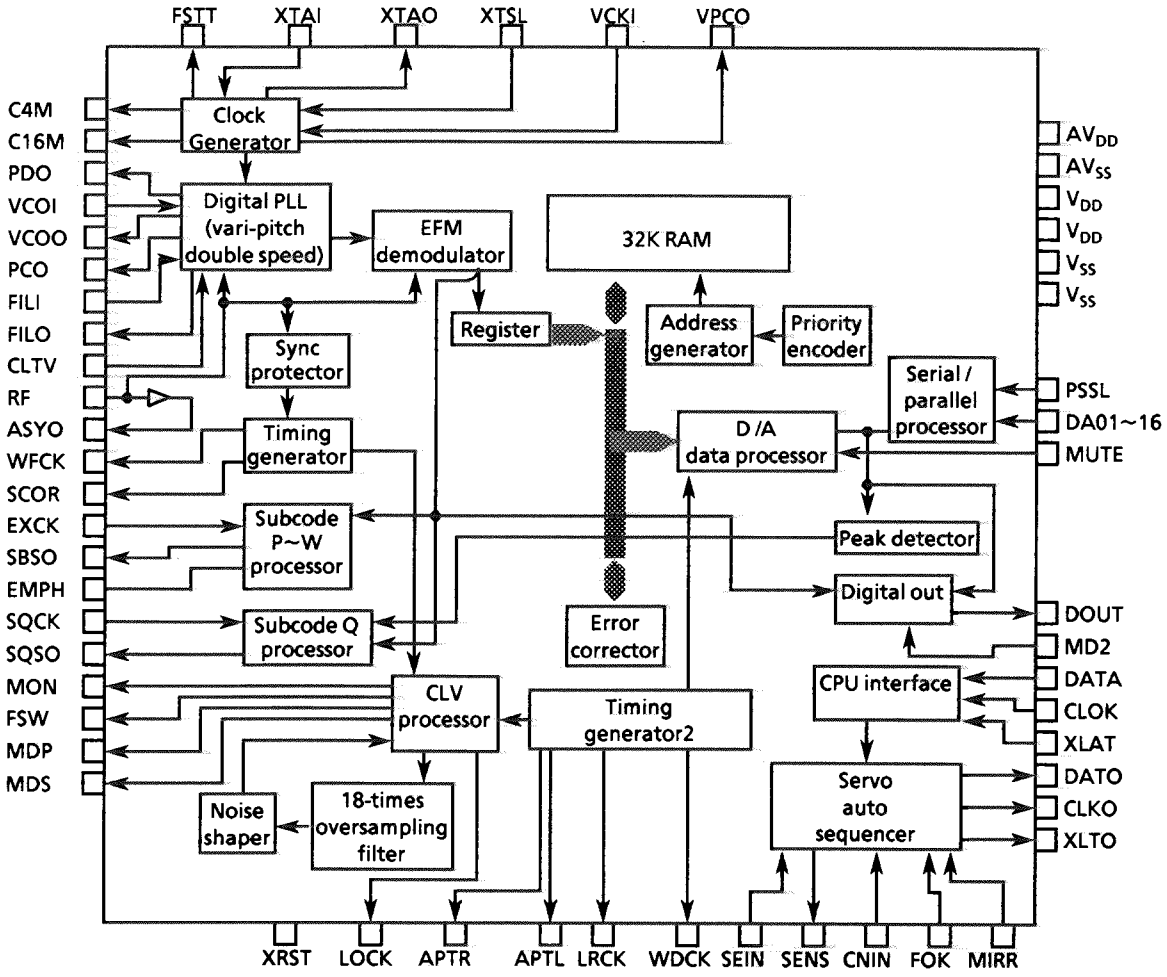
The CXD2500BQ is a digital signal processsing LSI designed for use in compact disc players. It has the following functions:

- All digital signals for regeneration are processed using one chip.
- The built-in RAM enables high-integration mounting.
- Generation by the use of a digital PLL of bit clock pulses for strobing the EFM signal.
- EFM data demodulation
- Subcode demodulation and subcode Q data error detection
- Digital spindle servo system (incorporating an oversampling filter)

2.Terminal Layout



3.Internal Block Diagram



Notes:

- The data at the 64-bit slot is output in 2's complements on an LSB-first basis. The data at the 48-bit slot is output in 2's complements on an MSB-first basis.
- GTOP monitors the state of Frame Sync protection. ("H" : Sync protection window released)
- XUFG is a negative Frame Sync pulse obtained from the EFM signal before Frame Sync protection is effected.
- XPLCK is an inversion of the EFM PLL clock. The PLL is designed so that the falling edge of XPLCK coincides with a change point of the EFM signal.
- The GFS signal turns "H" upon coincidence between Frame Sync and the timing of interpolation protection.
- RFCK is a signal generated at 136-μs periods using a crystal oscillator.
- C2PO is a signal to indicate a data error.
- XRAOF is a signal issued when a jitter margin of ± 28F is exceeded by the 32K RAM.

4. Terminal Function

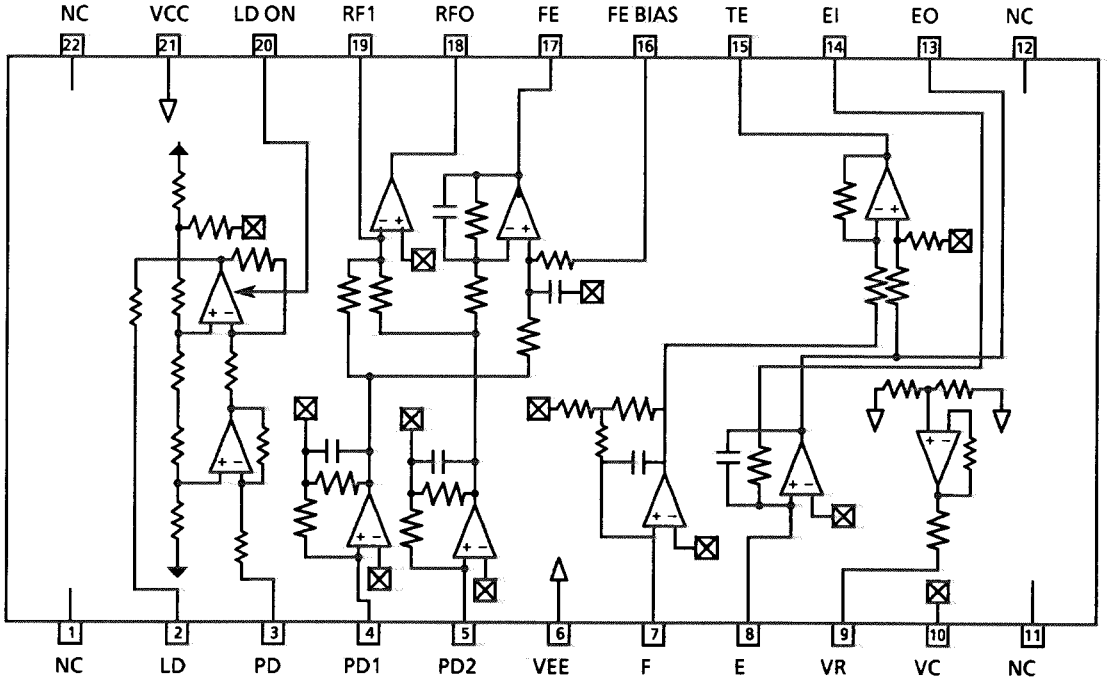
Pin No.	Symbol	I/O	Description
1	FOK	I	Focus OK input pin. Used for SENS output and servo auto sequencer.
2	FSW	O	Non connection
3	MON	O	Output for spindle motor ON / OFF control.
4	MDP	O	Output for spindle servo control.
5	MDS	O	Output for spindle servo control (Non connection).
6	LOCK	O	This terminal is "H" when the GFS signal sampled at 460Hz is "H". It turns "L" when the GFS signal turns out "L" 8 or more times in succession.
7~9	—	--	Non connection
10	TEST	I	Test pin (Normally at 0V)
11	PDO	O	Output of charge pump for analog EFM PLL (Non connection).
12	Vss	--	GND
13~16	—	--	Non connection
17	VCKI	I	Clock input from external VCO for vari-pitch control.fc = 16.9344MHz.
18	FILO	O	Output of filter for masterPLL (Slave = Digital PLL)
19	FILI	I	Input to filter for master PLL.
20	PCO	O	Output of charge pump for master PLL.
21	AVss		Analog GND
22	CLTV	I	VCO control voltage input for master PLL.
23	AV_{DD}	--	Analog power supply
24	RF	I	EFM signal input
25	TEST2	I	TEST pin (Connected to GND)
26	TEST3	I	TEST pin (Connected to GND)
27	ASYO	O	EFM full-swing output
28	TEST4	I	TEST pin (Connected to GND)
29	NC	--	Non connection
30	PSSL	I	Input used to switch the audio data output mode."L" for serial output,"H" for parallel output.
31	WDCK	O	D / A interface for 48-bit slot. Word clock f = 2Fs.
32	LRCK	O	D / A interface for 48-bit slot. LR clock f = Fs.
33	V_{DD}	--	Power supply
34	DA16	O	Output DA16(MSB) when PSSL = 1 or serial data from 48-bit slot(2's completements,MSB first) when PSSL = 0.
35	DDA15	O	Output DA15 when PSSL = 1 or bit clock from 48-bit slot when PSSL = 0.
36~51	—	--	Non connection
52	VSS	--	GND
53	XTAI	I	Input to 16.9344MHz Xtal oscillation circuit or 33.8688MHz input.
54	XTAO	O	Output of 16.9344 MHz Xtal oscillation circuit.
55	XTSL	I	Xtal selection input pin. "L" for 16,344MHz Xtal, "H" for 33.8688 MHz Xtal.
56~58	—	--	Non connection
59	MD2	I	Digital-Out ON/OFF control. "H" for ON, "L" for OFF.
60	DOUT	O	Digital-Out output pin.
61	EMPH	O	H : emphasis on L : emphasis off
62	—	--	Non connection
63	SCOR	O	Turns "H" when subcode Sync S0 or S1 is detected.
64	SBSO	O	Serial output of Sub P to W.
65	EXCK	I	Clock input for reading SBSO.
66	SQSO	O	Outputs 80-bit Sub Q and 16-bit PCM peak-level data.
67	SQCK	I	Clock input for reading SQSO.
68	MUTE	I	"H" for muting, "L" for release.
69	SENS	O	SENS output to CPU.
70	XRST	I	System reset. "L" for resetting.
71	DATA	I	Inputs serial data from CPU.
72	XLAT	I	Latches serial data input from CPU at falling edge.
73	V_{DD}	--	Power supply(+ 5V)
74	CLOK	I	Inputs serial data transfer clock from CPU.
75	SEIN	I	Inputs SENSE from SSP.
76	CNIN	I	Inputs track jump count signal.
77	DATO	O	Outputs serial data to SSP.
78	XLTO	O	Latches serial data output to SSP at falling edge.
79	CLKO	O	Outputs serial data transfer clock to SSP.
80	MIRR	I	Inputs mirror signal to be used by auto sequencer when jumping 128 or more tracks.

■ CXA1571S(IC702) : RF AMP FOR COMPACT DISC

1.Outline

The CXA1571S IC for compact disc #-point method optical pickup output has following functions.
·RF amplifier · Focus error amp · Tracking error · APC circuit

2. Internal Block Diagram



3. Pin Description

Pin No.	Symbol	I/O	Description
2	LD	O	APC amp output pin.
3	PD	I	APC amp input pin.
4 5	PD1 PD2	I I	RF I-V amp inverted input pins; they are connected to the A + C and B + D pins of the photodiode and receive current input.
7 8	F-IN E-IN	I I	F and E I-V amp inverted input pin; they are connected to Photodiodes F and E and receive current input.
9	VR	O	(VCC + VEE) / 2 DC voltage output pin.
10	VC	I	VC intermediate voltage input pin; when dual ± 5V power supplies are used, this pin is connected to GND; for a single + 5V power supply, it is connected to the VR pin.
13	EO	O	Monitor output pin for I-V amp E.
14	EI	I	Gain adjustment pin for I-V amp E.
15	TE	O	Tracking error amp output pin.
16	FE-BIAS	I	Bias adjustment pin for the mon-inverted side of the focus error amp.
17	FE	O	Focus error amp output pin.
18	RF O	O	RF amp output pin.
19	RF I	I	RF inverted side input pin; the resister connected between this pin and the RFO pin determines the gain of theRF amp.
20	LD-ON	I	This pin switches the APC amp on / off: on for VCC, off for ground.

■ CXA1372S (IC703) : RF SIGNAL PROCESSING SERVO AMPLIFIER

1.Outline

The CXA1372S is a bipolar IC developed for RF signal processing (focus OK, mirror, defect detection, EFM comparator) and servo control.

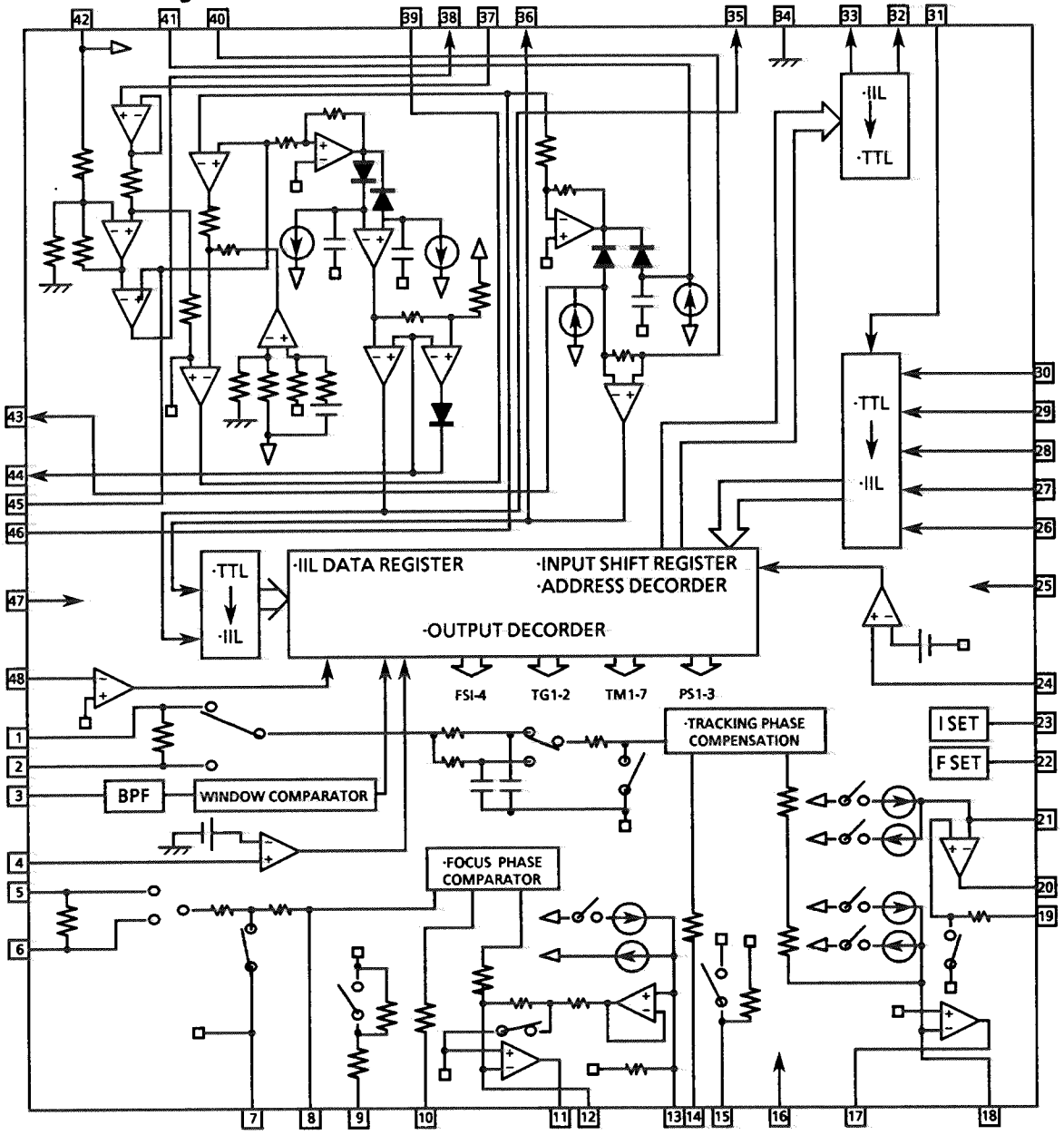
2.Functions

- Auto asymmetry control
- Focus OK detection circuit
- Mirror detection circuit
- Defects detection, counter measures circuit
- EFM comparator
- Focus servo control
- Tracking servo control
- Sled servo control

3.Terminal Layout

TE	1	48	TZC
TDFCT	2	47	DVEE
ATSC	3	46	RFO
FZC	4	45	RFI
FE	5	44	CP
FDFCT	6	43	CB
VC	7	42	DVCC
FGD	8	41	CC2
FS3	9	40	CC1
FLB	10	39	FOK
FEO	11	38	EFM
FE –	12	37	ASY
SRCH	13	36	DFCT
TGU	14	35	MIRR
TG2	15	34	DGND
AVCC	16	33	SENS
TAO	17	32	C.OUT
TA –	18	31	XRST
SL +	19	30	DATA
SLO	20	29	XLT
SL –	21	28	CLK
FSET	22	27	LOCK
ISET	23	26	DIRC
SSTOP	24	25	AVEE

4.Internal Block Diagram

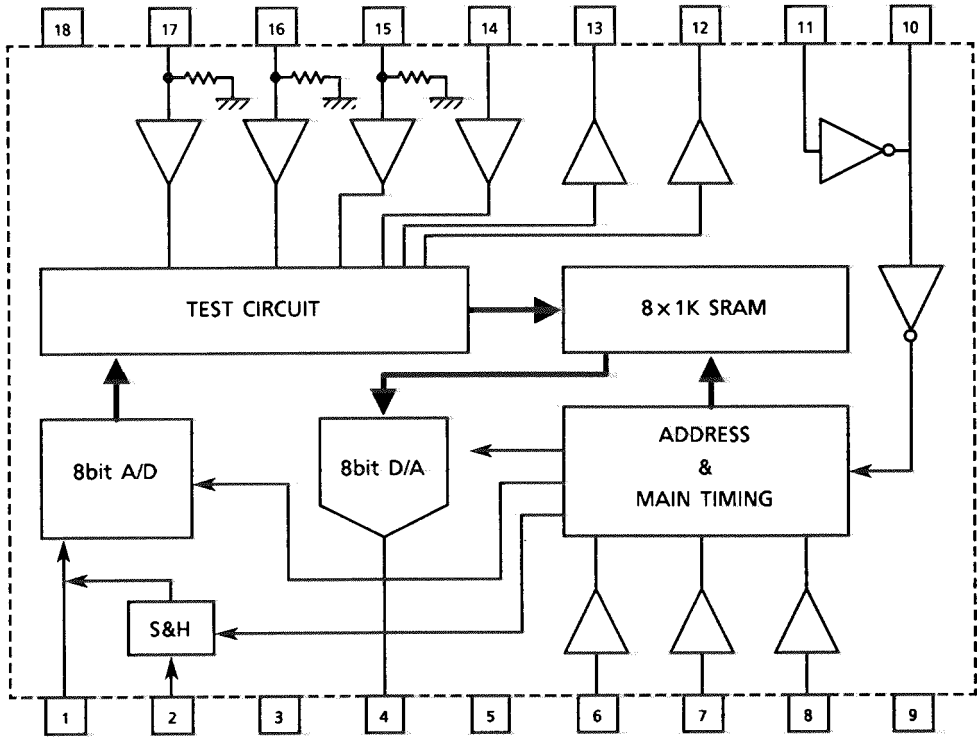


5.Pin Functions

Pin No	Symbol	I/O	Function
1	TE	I	Input pin of tracking error amplifier.
2	TDFCT	I	Capacitor connecting pin for time constant during defects.
3	ATSC	I	Window comparator input pin for ATSC detection.
4	FZC	I	Pin for focus zero-cross comparator input.
5	FE	I	Input pin of focus error.
6	FDFCT	I	Capacitor connecting pin for time constant during defect functions.
7	VC	I	Center voltage input pin. For dual power: GND For single power supply: (VCC + GND)/2
8	FGD	I	Connect a capacitor between this pin and pin3 to reduce high-frequency gain.
9	FS3	I	The high-frequency gain of the focus servo is switched through FS3 ON and OFF.
10	FLB	I	Time constant external pin to raise the low bandwidth of the focus servo.
11	FEO	O	Focus drive output.
12	FE-	I	Inverse input for focus amplifier.
13	SRCH	I	Time constant external pin for formation of focus search waveform.
14	TGU	I	Time constant external pin for the selection of tracking high band gain.
15	TG2	I	Time constant external pin for the selection of tracking high band gain.
16	AVCC	--	Power supply
17	TAO	O	Tracking drive output.
18	TA-	I	Inverse input pin for tracking amplifier.
19	SL+	I	Non- inverse input pin for sled amplifier.
20	SLO	O	Sled drive output.
21	SL-	I	Inverse input pin for sled amplifier.
22	F SET	I	Pin to set peak frequency of focus tracking phase compensation and fo of CLV LPF.
23	I SET	I	Current is input to determine focus search, track jump, and sled kick height.
24	S STOP	I	Limit SW ON/OFF signal detection pin for disc inner periphery detection.
25	AVEE	--	-5V
26	DIRC	I	Pin for one-track jump. Contains 47kΩpull-up resistor.
27	LOCK	I	At "L" sled runaway prevention circuit operate. Contains a 47kΩpull-up resistor.
28	CLK	I	Serial data transfer clock input from CPU.
29	XLT	I	Latch input from CPU.
30	DATA	I	Serial data input from CPU.
31	XRST	I	Reset input pin, reset at "L".
32	C.OUT	O	Track number count signal output.
33	SENS	O	Outputs FZC, AS, TZC and S STOP through command from CPU.
34	DGND	--	GND
35	MIRR	O	MIRR comparator output pin.
36	DFCT	O	Output pin of DEFECT comparator.
37	ASY	I	Input pin of auto asymmetry control.
38	EFM	O	Output pin of EFM comparator.
39	FOK	O	Output pin of FOK comparator.
40	CC1	I	Output pin of DEFECT bottom hold.
41	CC2	O	Input pin for the capacitance coupled output of DEFECT bottom hold.
42	DVCC	--	-5V
43	CB	I	Connection pin of DEFECT bottom hold capacitor.
44	CP	I	Connecting pin of MIRR hold condenser. Non-inverted input pin of MIRR comparator.
45	RFI	I	Input pin with coupling capacitor where RF summing amplifier output is connected.
46	RFO	O	Output pin of RF summing amplifier and check point of eye pattern.
47	DVEE	--	-5V
48	TZC	I	Input pin of tracking zero-cross comparator.

■ BU9251S: IC999 (D/A DELAY & A/D)

1. Block Diagram

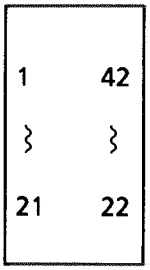


2. Terminal Function

Pin No	Pin Name	Function
1	S&H	Capaciter connected pin for sample and hold
2	AIN	Input for analog signal
3	GND	GND
4	AOUT	Output for analog signal
5	VDD	Power supply
6	DCNT0	Delay time setting
7	DCNT1	Delay time setting
8	DCNT2	Delay time setting
9	GND	GND
10	OSC0	Oscillating 2
11	OSC1	Oscillating 1
12	TDO1	For test (output)
13	TDO0	For test (output)
14	TDIN	For test (input)
15	TST2	Mode setting for test
16	TST1	Mode setting for test
17	TST0	Mode setting for test
18	VCC	Power supply

■ M66004SP (IC801) : FL Driver IC

1. Terminal Layout

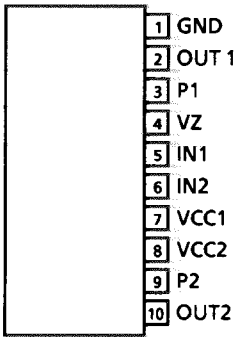


2. Terminal Functions

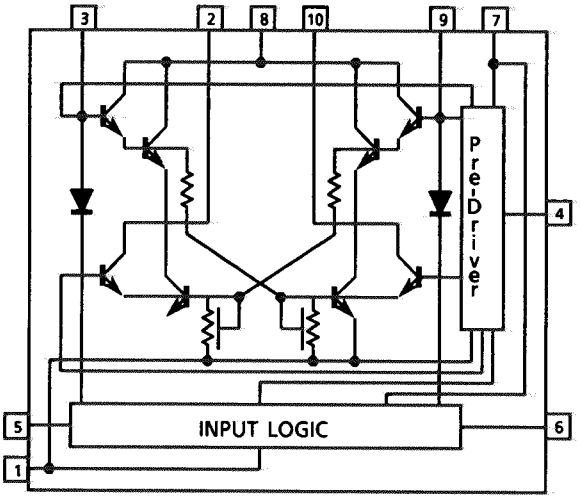
Pin No	Symbol	I/O	Function
2~12	1G,11G~20G	–	FL grid drive signal
13	$\overline{\text{RESET}}$	I	Reset input for internal logic at turning the power on.
14	$\overline{\text{CS}}$	I	Chip select
15	SCK	I	System clock for shift register
16	S.DATA	I	Indication data input
19,60	Vcc	–	Power supply
20,21	XOUT,XIN	I/O	Oscillation circuit is composed by connecting the resistor and capacitor.
22	GND	–	GND
32	VP	–	–27V
31,33,34,36~39,41~44, 46~49,51~54,56~59	S1~S23	O	FL anode drive signal

■ LB1641 (IC921~924) : Motor Driver

1. Terminal Layout



2. Internal Block Diagram

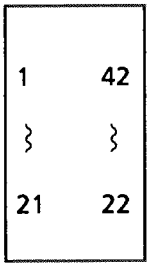


3. Terminal Function

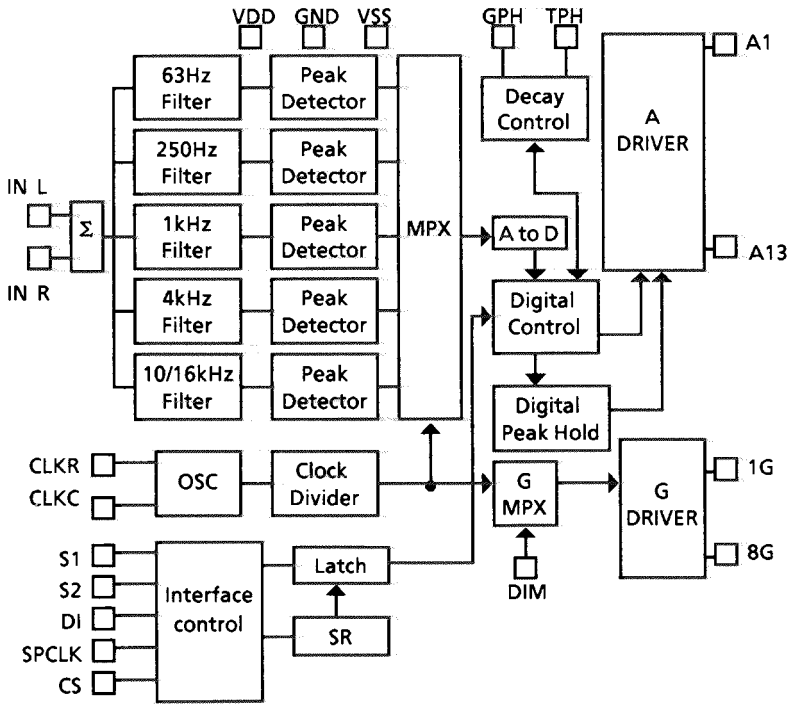
IN 1	IN 2	OUT 1	OUT 2	MOTOR
H	L	H	L	CLOCKWISE
L	H	L	H	COUNTER-CLOCKWISE
H	H	OFF	OFF	WAITING
L	L	OFF	OFF	WAITING

■ XR1095CP (IC802) : Display Driver

1. Terminal Layout



2. Block Diagram

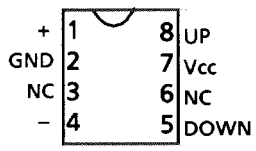


3. Terminal Functions

Pin No.	Symbol	Function	Pin No.	Symbol	Function
1~5, 9~16	T1~T13	FL anode control	24	GND	Ground
			25	R IN	Audio signal input
17	CS	Chip select	26	L IN	Audio signal input
18	SPCLK	Clock for data transmission	27	GPH	The resistor and capacitor connected to this pin determine the peak hold time.
19	DI	Serial data input	28	TPH	
20,21	S1, S2	Chip select (connected to GND)	31~38	1G~8G	FL grid control
22	DIM	Connected to ground	40	CLKR	A resistor is connected for oscillation
23	VSS	Power supply(−)	41	CLKC	A capacitor is connected for oscillation
24	GND	Ground	42	VDD	Power supply (+)

■ LB1639-CV (IC909) : Motor Driver

1. Terminal Layout

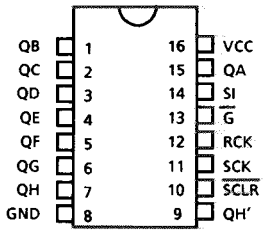


2. Pin Function

IN 1	IN 2	OUT 1	OUT 2	MOTOR
H	L	H	L	CLOCKWISE
L	H	L	H	COUNTER-CLOCKWISE
H	H	OFF	OFF	WAITING
L	L	OFF	OFF	WAITING

■ TC74HC595AP(IC905,906) : 8 Bit Shift Register

1. Terminal Layout

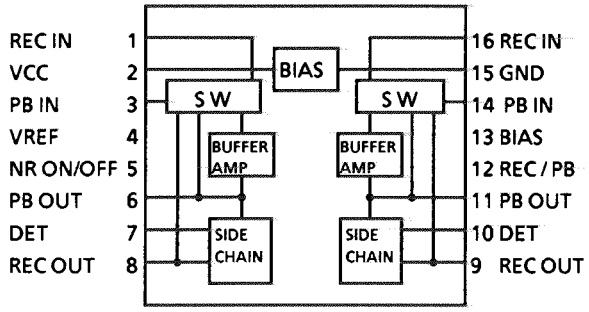


2. Function Table

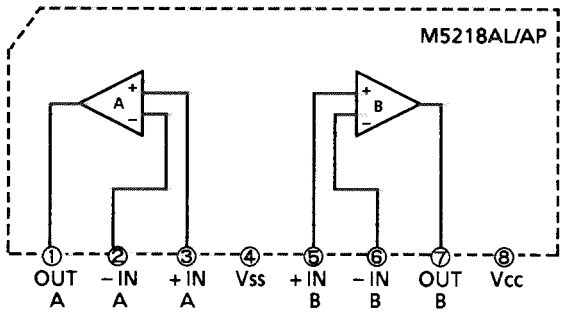
Inputs					Functions
SI	SCK	SCLR	RCK	G	
X	X	X	X	H	Output (QA-QH) disable.
X	X	X	X	L	Output (QA-QH) enable.
X	X	L	X	X	Shift register is cleared.
L	↑	H	X	X	Condition of shift register in initial stage is "L". In the other stages, data from the former stage is stored.
H	↑	H	X	X	Condition of shift register in initial stage is "H". In the other stages, data from the former stage is stored.
X	↓	H	X	X	Shift register does not change.
X	X	X	↑	X	Shift register data is stored in the storage register.
X	X	X	↓	X	Shift register does not change.

X : Don't care

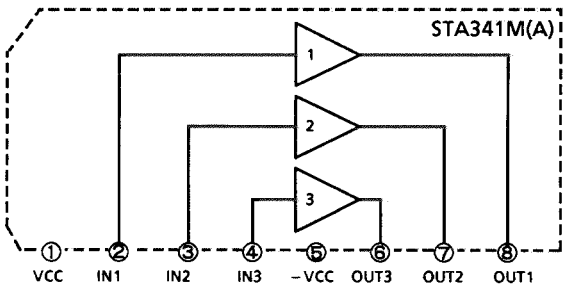
■ HA12136A (IC381) : Noise Reduction Amplifier



■ M5218AL /AP(IC751/752) : Dual OP Amp.

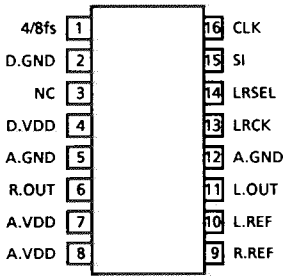


■ STA341M(A) (IC704) : Motor Driver

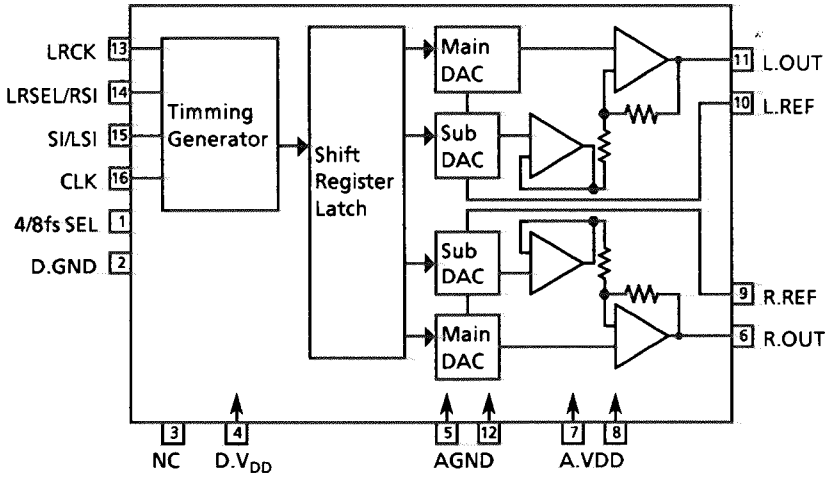


■ UPD6376CX (IC751) : D / A CONVERTER

1. Terminal Layout



2. Internal Block Diagram

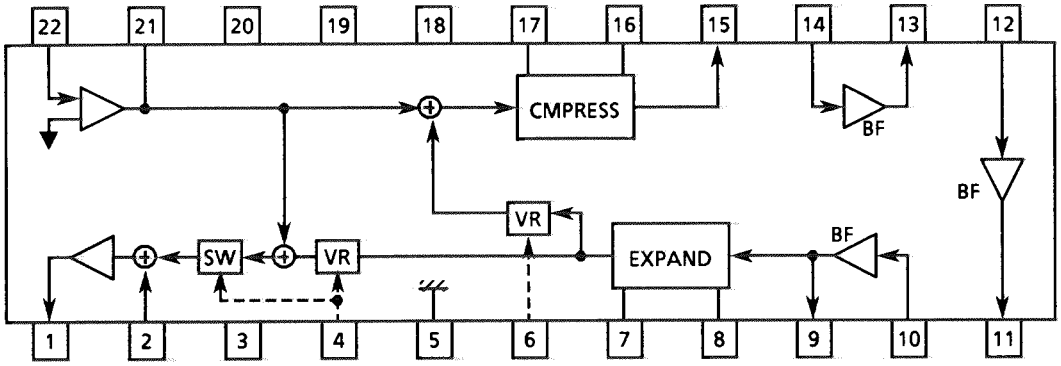


3. Terminal Functions

Pin No.	Symbol	I/O	Function
1	4/8FS SEL	I	"L" or "OPEN" : Left channel and Right channel data is input to the pin 15 "H" : Left channel data is input to the pin 15. Right channel data is input to the pin14.
2	D.GND	--	Ground terminal for the logic section.
3	NC	--	Non connection
4	D.VDD	--	Power supply for the logic section.
5	A.GND	--	Analog ground
6	R.OUT	O	Output terminal for the Right channel signal.
7	A.VDD	--	Power supply for the Analog section.
8	A.VDD	--	Power supply for the Analog section.
9	R.REF	I	Reference voltage terminal
10	L.REF	I	Reference voltage terminal
11	L.OUT	O	Output terminal for the Left channel signal.
12	A.GND	--	Analog ground
13	LRCK/WDCK	I	Pin 1 = "L" or "OPEN" : Input terminal of the signal which indicates which channel is input. Pin 1 = "H" : Word clock input for the input data.
14	LRSEL/RSI	I	Pin 1 = "L" or "OPEN" : When this terminal is "H" , input "L" of the LRCK indicates that Left channel is input to the pin 15. When this terminal is "L" , input "H" of the LRCK indicates that Left channel is input to the pin 15. Pin 1 = "H" : Input terminal for the Right channel signal.
15	SI/LSI	I	Pin 1 = "L"or OPEN : Input terminal for the Right and Left channels Pin 1 = "H": Serial data input terminal for the Left channel signal.
16	CLK	I	Clock input for reading the serial data.

■ BA7725S (IC751) : SEMICONDUCTOR

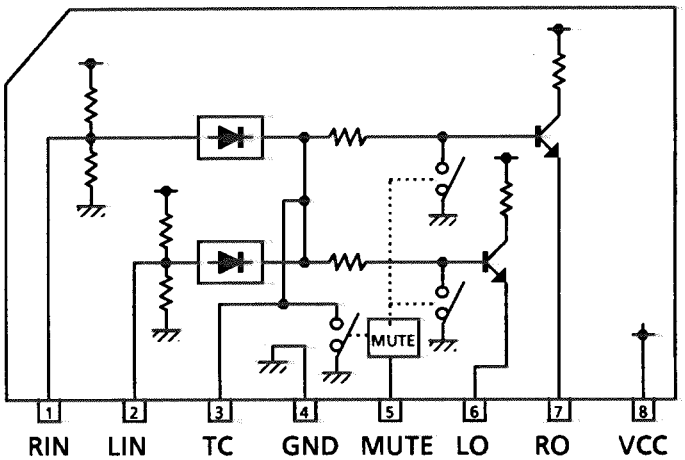
1. Internal Block Diagram



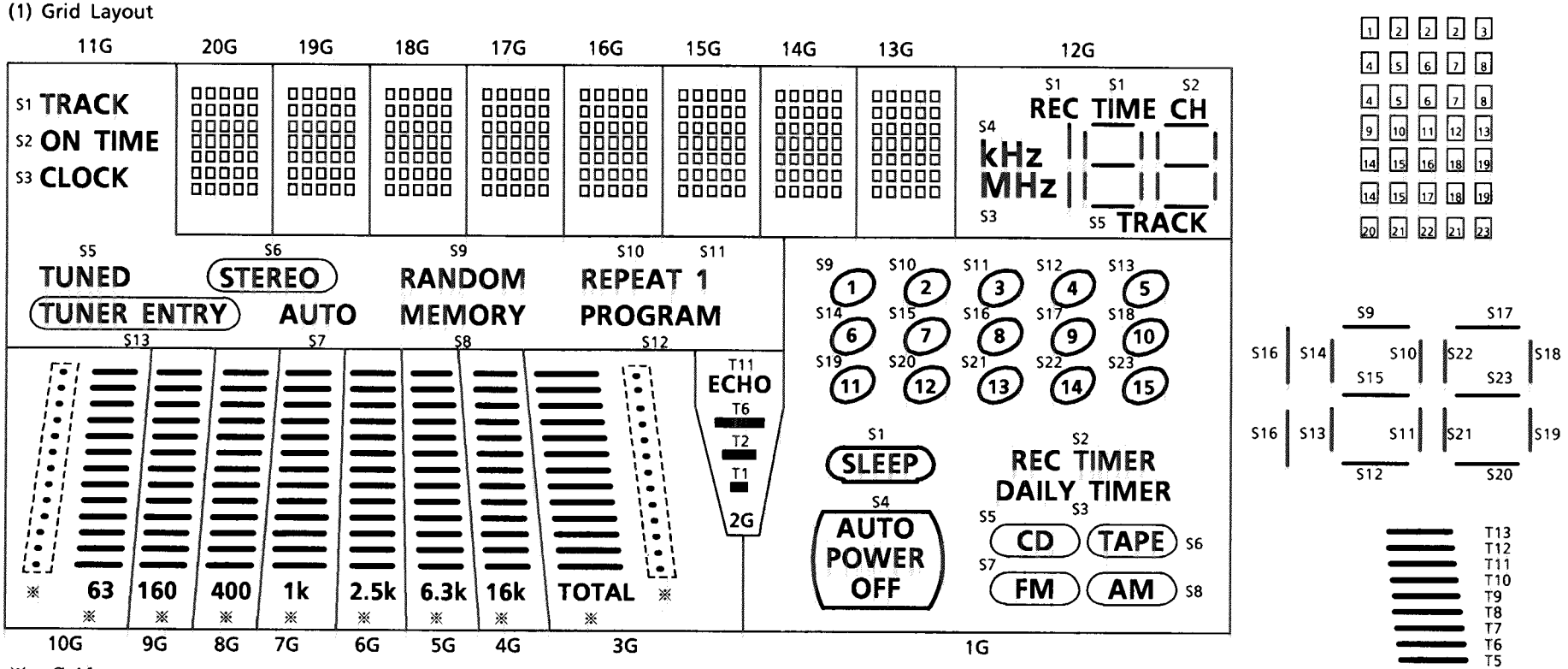
2. Terminal Functions

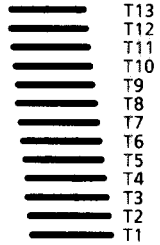
Pin No.	Symbol	Function
1	LINE OUT	Line output
2	LINE IN	Line input
3	NC	Not used
4	ECHO LEV CTRL	Sets MIC OFF mode under 1V, Sets echo signal attennation between 2~9V.
5	GND	Analog ground
6	LOOP GAIN CTRL	Sets round loop attenuation. Adjusts between 2~9V.
7	EXP DET	Expand detection terminal.
8	EXP DET CT	Sets Expand attack and recovery time. Attack R:5.6kΩ, Rcovery R:85.6kΩ.
9	EXP BF OUT	BF output for LPF (side of Expand).
10	EXP BF IN	BF input for LPF (side of Expand).
11	DLY BF OUT	BF output for echo signal output.
12	DLY BF IN	BF input for echo signal input.
13	CMP BF OUT	BF output for LPF (side of COMPRESS).
14	CMP BF IN	BF input for LPF (side of COMPRESS).
15	CMP OUT	Compress output.
16	CMP DET CT	Sets Compress attack and recovery time. Attack R:5.6kΩ, Rcovery R:85.6kΩ.
17	CMP DET	Compress detection terminal.
18	RIPPLE FITER	Capacitor mounted to reject ripple.
19	VCC	Power supply.
20	NC	Not used
21	MIC AMP OUT	Mic amp output.
22	MIC AMP IN	Mic amp input.

■ BA8221N (IC351) : ALC



(1) Grid Layout





※ Grid

(2) Pin Connections

(UPPER)

TERMINAL NO.	68	67	66	65	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35
ELECTRODE	F1	F1	F1	P S13	P S12	P S11	P S10	P S9	P S8	P S7	P S6	20G	19G	18G	17G	16G	15G	14G	13G	12G	11G	P S14	P S15	P S16	P S17	P S18	P S19	P S20	P S21	P S22	P S23	F2	F2	F2

(LOWER)

TERMINAL NO.	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
ELECTRODE	P T5	P T6	P T7	P T8	P T9	P T10	P T11	P T12	P T13	P S5	P S4	P S3	P S2	P S1	F2	F2	F2	F1	F1	F1	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	P T1	P T2	P T3	P T4

Notes F : Filament G : Grid P : Anode

Disassembly Procedures

(1) Top cover removal
1. Remove 4 screws Ⓐon the rear side and 2 screws Ⓐ on both sides of the cover.
2. Remove the cover.

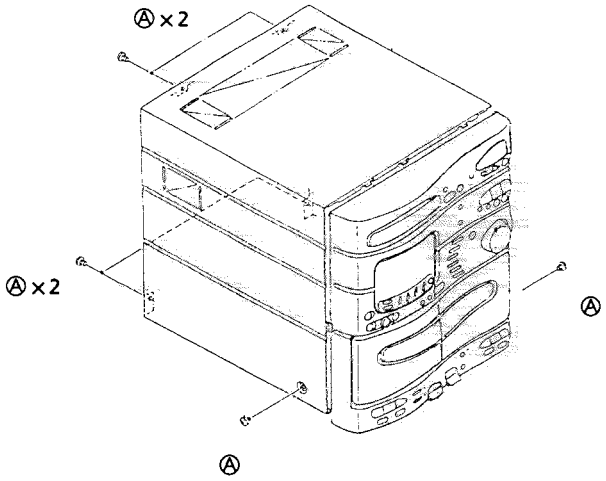


Fig1 Front view

(2) Rear panel removal
1. Remove the top cover.
2. Remove the 16 screws Ⓑ.
3. Remove the heet synk cover and rear panel.

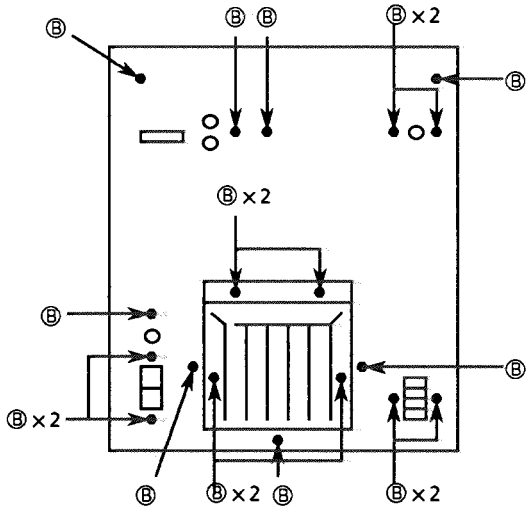


Fig2 Rear view

(3) Tuner and deck PCB (ENJ-077-1) removal
1. Remove the top cover.
2. Remove the rear panel (definitely).
3. Remove the screws Ⓒ.
4. Remove the plastic rivet.
5. Remove JA901,J851,P201 and P202 which are connected with the PCB.
6. Also remove other connectors if it is necessary to remove the PCB completely.

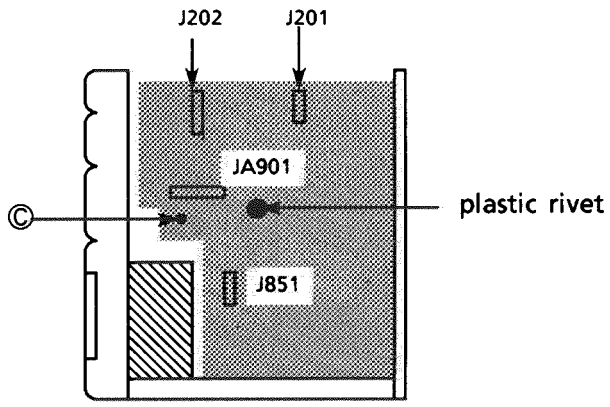


Fig 3 Right side view

(4) CD PCB (FSN-008-1) with CD mechanism assembly removal.
1. Remove the top cover.
2. Remove the rear panel.
3. Remove the tuner and deck PCB (FSJ-001-1).
4. Remove the 3 screws Ⓓ fixing the CD PCB.
5. Disconnect the wire P701.
6. Remove the 4 screws Ⓔ on the bottom of the CD PCB.
7. Remove the CD assembly base, disconnecting connectors P601, P602 and P603.

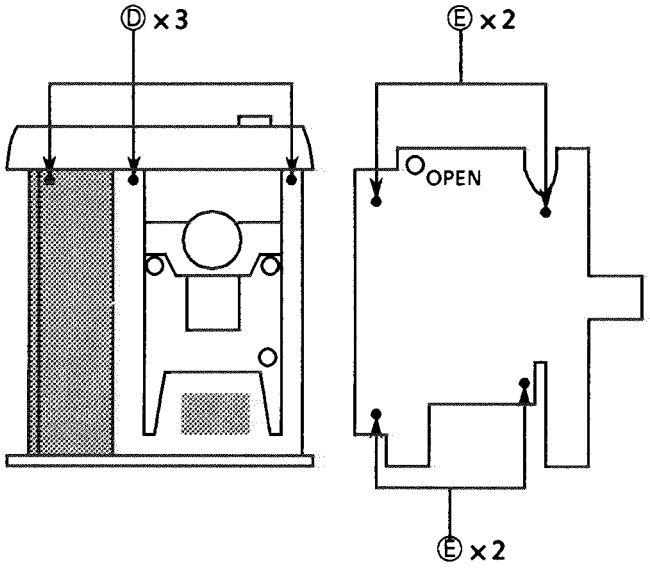


Fig 4 Top view Fig 5 CD PCB Bottom view

(5) Front panel assembly removal
1. Remove the top cover.
2. Remove the rear panel.
3. Remove the tuner and deck PCB (FSJ-001-1).
4. Remove the 3 screws Ⓕ on the bottom of the front panel.
5. Remove the assembly, disconnecting connectors J512, J531, J601 and J991.

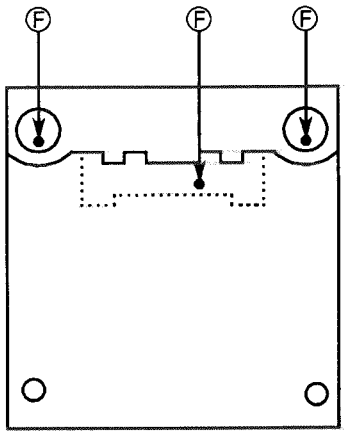


Fig 6 Bottom view

(6) CD mechanism assembly removal
1. Remove the front panel assembly.
2. Disconnect the connectors P602, P603.
3. Turn the screw Ⓖ located under the mechanism to remove the tray out of the loading mechanism.
4. Remove the screw Ⓗ to remove the tray.
5. Remove the 2 screws Ⓘ to remove the clamp assembly.
6. Remove the 3 screws Ⓙ.
7. Remove the CD mechanism assembly.

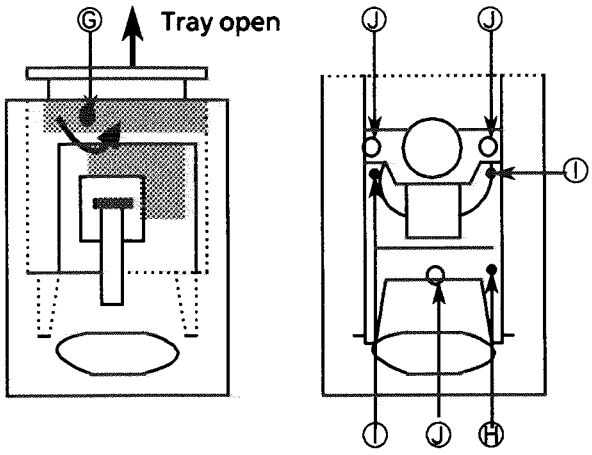
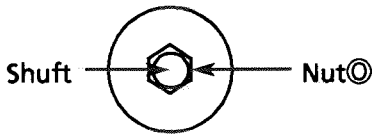


Fig 7 CD Mechanism Bottom view

Fig 8 CD Mechanism Top view

(7) Main volume removal
1. Remove the screws Ⓝ(Fig.10).
2. Remove the Braket.
3. Pull the Main volume knob.
4. Remove the Nut Ⓞ.
5. Remove the Main volume assembly.



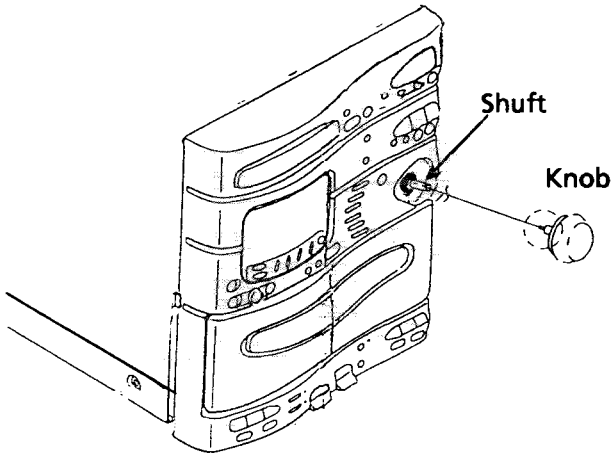


Fig 9 Front panel view

(7) Cassette mechanism with the PCB (FSC-001-3) removal

1. Remove the top cover.
2. Remove the front panel assembly.
3. Disconnect the connectors JB801 ,J931 and P981.
4. Remove the 8 screws Ⓚ.
5. Open the cassette doors to remove the cassette mechanism.

(8) Front PCB(FSC-001-1) removal

1. Remove the top cover.
2. Remove the front panel assembly.
3. Remove the 12 screws ⓁscrewsⓂ.
4. Remove the screws Ⓝ.
5. Remove the Braket.
6. Remove the Front PCB(FSC-001-1).

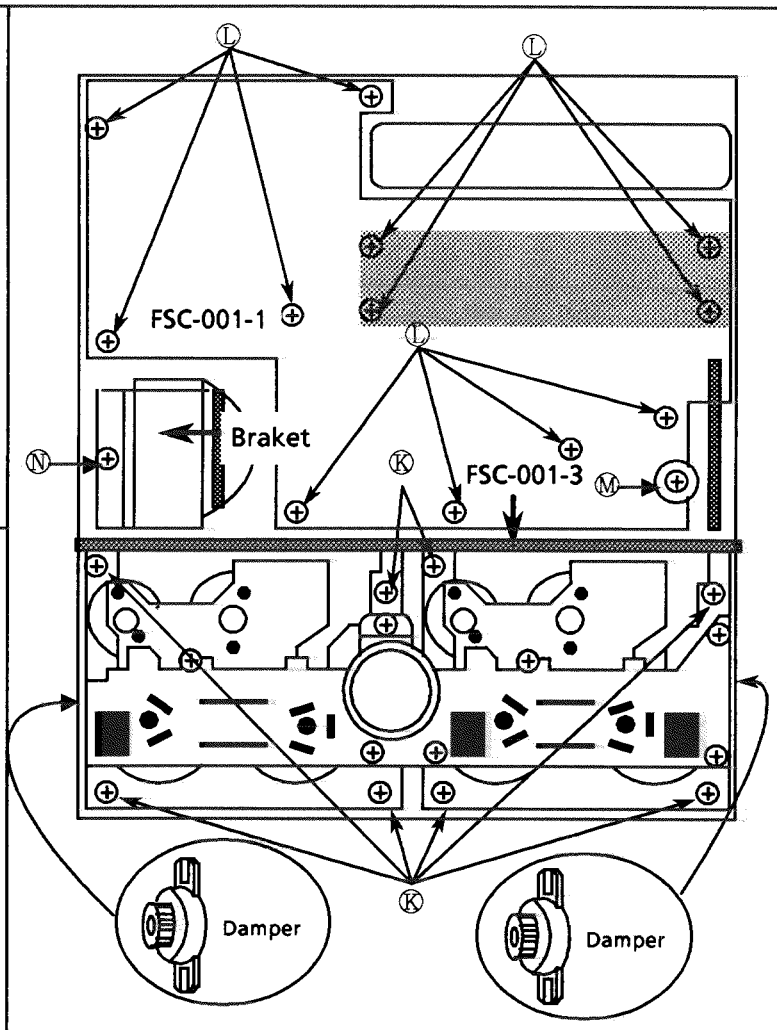


Fig 10 Front panel Reae view

(9) Cassette holder removal

1. Remove the cassette mechanism assembly.
2. Remove the spring hooked on the cassette holder (Fig 11).
3. Remove the cassette holder.

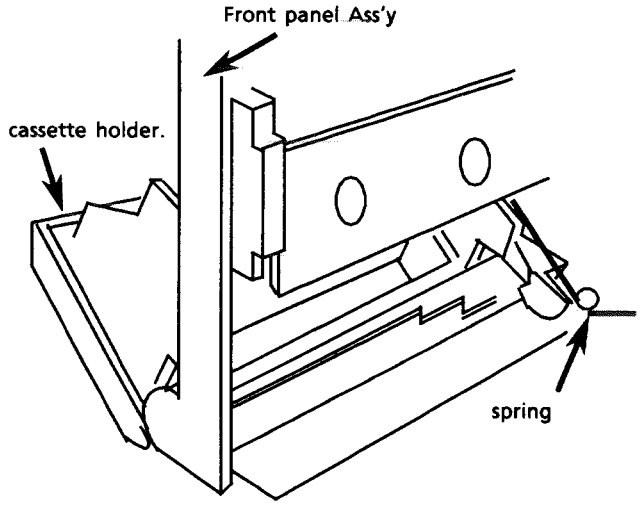


Fig 11 Front view

Disassemble of the CD mechanism assembly

(1) Pickup removal
1. Remove the cd mechanism assembly.
2. Release the shaft to remove the pickup (Fig 12).

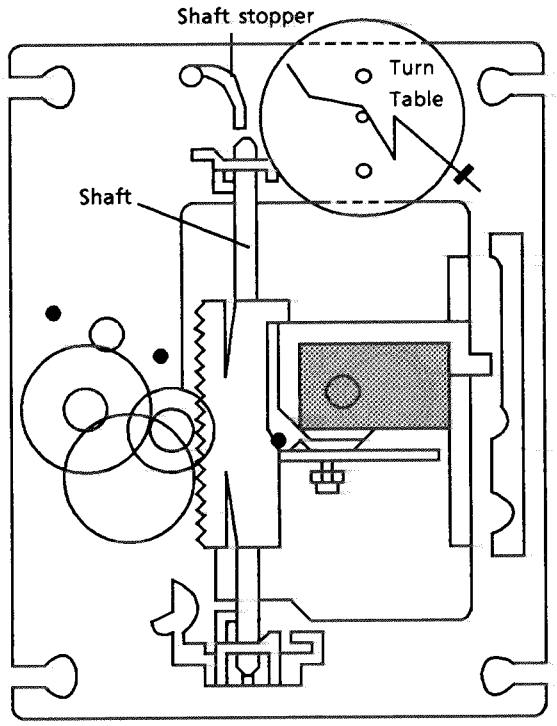


Fig 12 CD mechanism assembly

(2) Spindle motor removal
1. Remove the cd mechanism assembly.
2. Remove the turntable, and remove the two screws retaining the spindle motor.
3. Remove the screws retaining the spindle and feed motor P.C. Board and unsolder it.

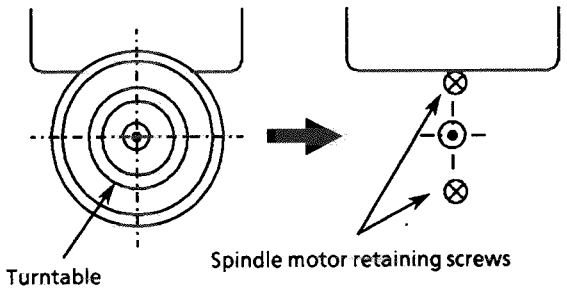


Fig 13

(3) Spindle motor installation
1. Tighten the 2 screws to the same torque.
2. Fasten the spindle and feed motor P.C. board with the screw and solder.
3. Install the turntable.When installing, press straight down at the center of the turntable until the distance from the surface of the mechanism base to the turntable is exactly 19.4±0.1mm.

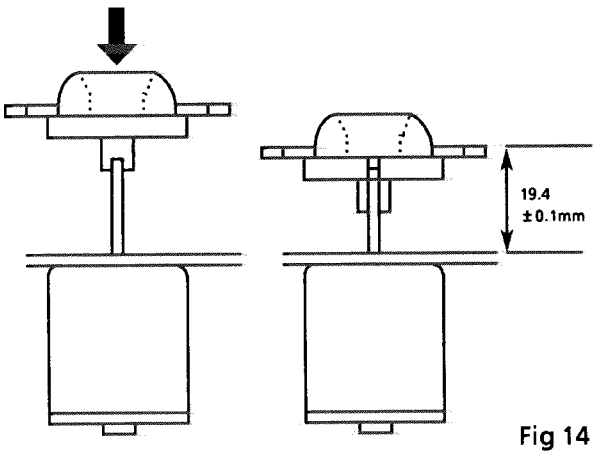


Fig 14

(4) After inserting the turntable, bond the motor shaft and turntable together (at the section marked by an arrow in fig 15 on the left below).

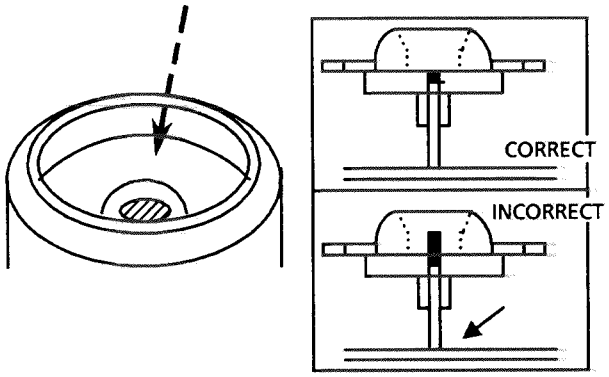


Fig 15

(5) Use "LOCKTITE" #460 bonding agent, and apply as little as possible. Take care not to allow any excess bonding agent to get onto the turntable. Be extremely careful not to allow bonding agent to adhere to the motor bearings (the section marked by an allow in fig 15 on the right).

Disassemble of the cassette mechanism

(1) Cassette controller PCB (FSC--001-3) removal
1. Remove the cassette mechanism assembly with the PCB.
2. Remove the 2 screws Ⓐ.

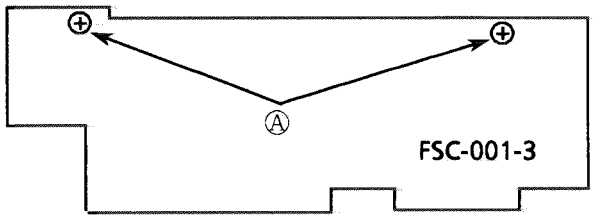


Fig 16

(2) Head assembly removal
1. Remove the cassette mechanism assembly.
2. Remove the FPC holder (Fig 19).
3. Remove the 3 screws ⓕ fixing the head assembly (Fig 18).

※ **Note**
The direction of the head is changed with the head gear. When servicing, install the head gear according to the direction of the head. Refer to fig 18.

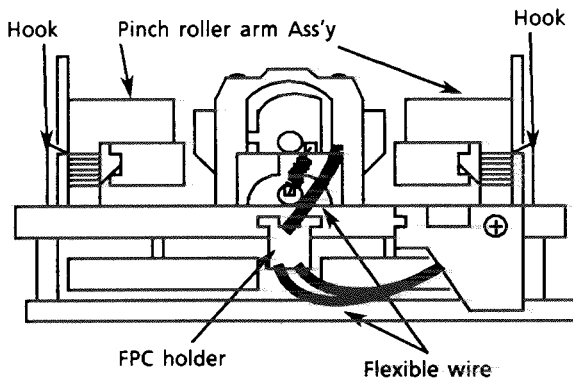


Fig 17

(3) Pinch roller arm assembly removal
1. Release the hook holding the pinch roller arm assembly to remove the assembly (Fig 19).

(4) Capstan motor removal
1. Remove the cassette mechanism assembly.
2. Remove the cassette controller PCB.
3. Remove the screw Ⓓ to remove the echo PCB (Fig 19).
4. Remove the 7 screws Ⓔ,Ⓕ fixing the bracket (Fig 20).
5. Remove the motor with the bracket.
6. Remove the 2 screws fixing the motor and the bracket.

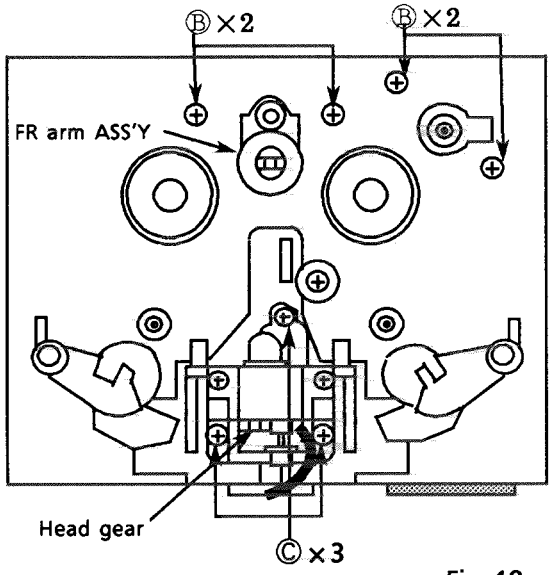


Fig 18

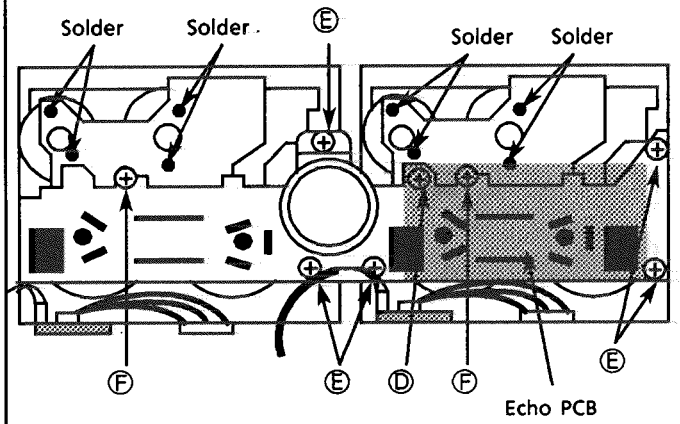


Fig 20

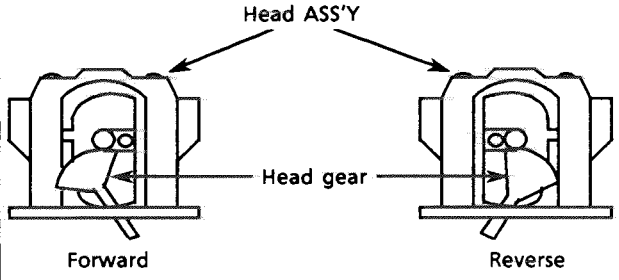


Fig 19

(5) Reel and cam motor PCB

with reel and cam motor removal

1. Remove the cassette mechanism assembly.
2. Remove the cassette controller PCB (FSC-001-3).
3. Remove the 7 screws Ⓔ,Ⓕ fixing the bracket (Fig 20).
4. Remove the motor with the bracket.
5. Remove the 4 screws Ⓑ fixing the reel and cam motor.
6. Unsolder the reel and cam motor PCB.
7. Remove the PCB with motor.
   Be careful so that stress is not added to the terminals of the motor.

(6) Fly wheel removal

1. Remove the cassette mechanism assembly.
2. Remove the cassette controller PCB.
3. Remove the 7 screws Ⓔ,Ⓕ and the bracket (Fig 22).

* The oil on the capstan must be wiped out after re-assembling.

※To install the bracket

1. Install the belt of mechanism A as shown in fig 22.
2. Assemble the mechanism A and the bracket with the capstan motor.
3. Hang the belt of the mechanism A to the motor pulley using a tweezers and the like.
4. Hang the part Ⓖ to the Idler pulley.
5. Install the mechanism B installed the belt as shown in fig 23 to the bracket which is assembled with the mechanism A.
6. Hang the part Ⓗ to the motor pulley using a tweezers and the like.

(6) Cam switch PCB removal

1. Remove the fly wheel.
2. Remove the screw fixing the PCB.
3. Remove the hooks fixing the PCB to remove the cam switch.
   When assembling the cam switch, install it so that the part Ⓙ meets the part Ⓘ (Fig 24).

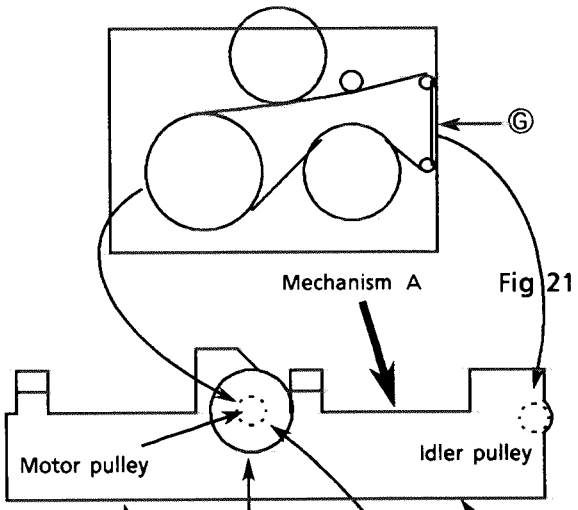


Fig 21

Fig 19

Fig 22

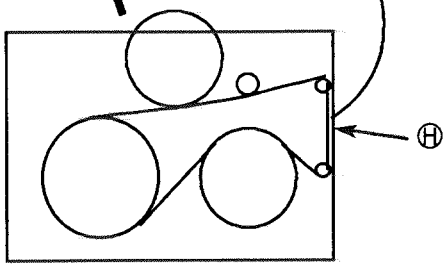
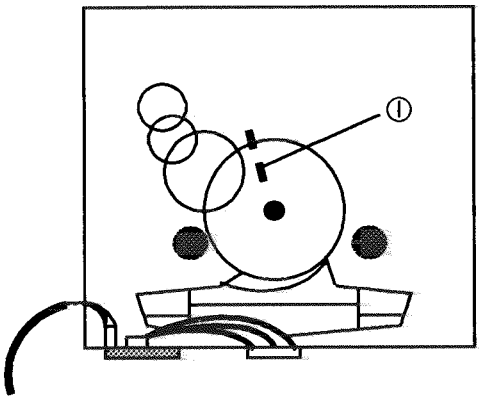


Fig 23



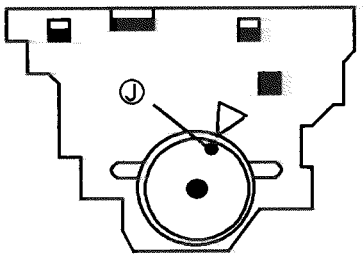


Fig 24

Adjustment Procedures (Cassette Deck)

■ Tuner section

(1) Clock Adjustment

1. After connecting W649 and W650 with some wire, connect ac power cord into ac outlet.
2. Confirm that the display is off and remove the wire.
3. Connect a frequency counter to W774 and W650.
4. Adjust TC781 so that the frequency becomes 34952.5±0.15Hz.

(2) Tuning voltage

Confirm the voltages in the table below at TP101. If the voltages are not satisfied, replace T101 for AM or FE101 for FM.

FM Tuning voltage (Unit : V)

Frequency	FM		AM	
	76MHz	108MHz	522kHz	1629KHz
Tuning voltage	1.6±1.0	8.0±2.0	1.0±0.2	7.5±0.8

(3) FM center meter

Receive a broadcast by using the function of 'AUTO STOP'.
Adjust T105 (detector coil) so that the voltage at TP102 becomes 0±1.5mV.

■ CD section

(1) Adjustment measure

Oscilloscope , Test disc (CRG-1117)

(2) Procedures

1) EF balance

① Connect TP2(TEST) with TP4(GND).
② Connect a oscilloscope between TP8(TEIN) and TP4(GND) and play the test disc.
③ Adjust R684 so that the center voltage of the waveform becomes 0±0.05V.

2) Gain adjustment

If the gain is out of adjustment, the symptoms below will appear.

●Gain too low

Focus gain : Focus is not obtained and disc does not rotate.
Tracking gain : Mechanical shock occurs easily and sound is interrupted. Or time counter display stops counting.

●Gain too high

Focus gain : Scratches (on the disc) easily interrupt play, and noise is increased during play.
Tracking gain : Since the follow-up ability of the pickup is too high, the pickup may oscillate and oscillating sound may output.

As described above, the focus and tracking gain adjustment are performed to satisfy mutually contradictory characteristics.
A simplified adjustment procedure is described below.
However, since exact adjustment can not be performed prior to adjustments, note(or mark) the positions of the semi-fixed resistors.
If the positions after the adjustment are only different, return the VRs to their original position.

Tracking gain adjustment

1. Connect an oscilloscope to TP 8(TEIN) and TP 4(GND).
2. Load the test disc and press the PLAY button.
3. Adjust R704 (T.GAIN ADJ.) so that the correct waveform as shown in figure 3 is obtain.

Tracking Gain Adjustment

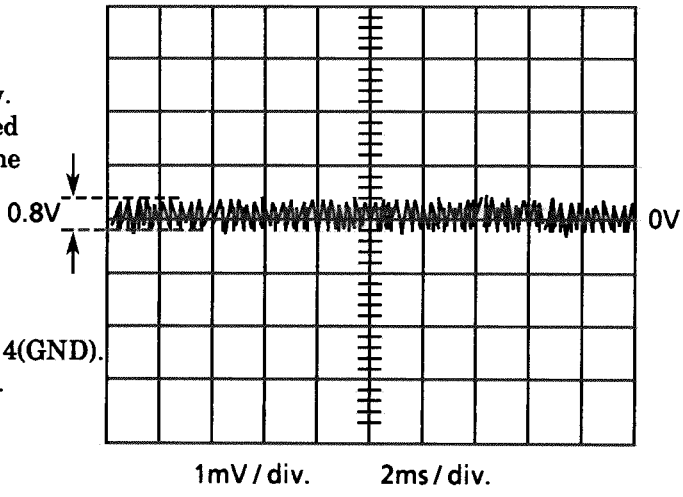


Figure 3

3. Electrical Adjustments (Make the following adjustments after adjusting the head azimuth.)

In principle, the adjustments should be made in the following sequence.
Set the NR switch to OFF and the BEAT CUT switch to "1".
Adjustments marked with an asterisk (*) should always be made after the head is replaced **0dBs = 0.775V**

	Item	Adjustment Method	Adjustment Location	Standard Value	Remarks
1	Tape Speed	1. Connect a frequency counter to the DOLBY TP(figure 1) and play back VTT-712. 2. Normal speed Adjustment 1) Mechanism B Play back deck B to adjust the semi-fixed resistor R948. 2) Mechanism A Play back deck A to confirm that the difference between deck A and deck B is within ±51Hz. 3. High-speed adjustment 1) Mechanism B Play back deck B, check 6000Hz.	R948	3,000 Hz ±10Hz 6,000Hz ±600Hz	1) Adjust the normal speed first, and perform the high speed adjustment.
*2	Standard level (Playback Level)	1. Connect an electronic voltmeter to the DOLBY TP (figure 1). Play back VTT-724 (1 kHz : −4dBs) to adjust the semi-fixed resistors.	**Deck A** L: R221 R: R222 **Deck B** L: R389 R: R390	−5.5dBs (411mV) ±1dB	1) The playback level varies when the head is replaced so should be adjusted. Use an electronic voltmeter with an impedance of 100 kΩ or more.
*3	Playback Frequency Response	1. Connect an electronic voltmeter to the DOLBY TP (figure 1). 2. Play VTT-703L (10kHz : −10dBs) and adjust semi-fixed resistors to obtain the standard values.	**Deck A** L: R203 R: R204 **Deck B** L: R205 R: R206	−11.5dBs (206mV) ±3dB	—
*4	Recording Bias Frequency	1. Connect a frequency counter to the BIAS TP(figure 1), and perform a recording to adjust bias frequency.	L335	100 kHz +10kHz -5kHz	—
*5	Record / Play Frequency Response (Bias current)	1. Supply 1kHz and 12.5kHz with 30mV signals to PHONO/AUX terminals respectively to record them. 2. Connect an electronic voltmeter to the DOLBY TP (figure 1) to confirm the recorded values. 3. If the values are not satisfied, adjust the semi-fixed resistors and record the signal again to confirm the recorded values.	L : R335 R : R336	0±2 dB with 1 kHz as the standard.	**Refer to figure 5 below.** 1) The recording and playback frequency response of a cassette deck are adjusted by adjusting the bias. 2) Perform the adjustment with normal tape and confirm that the values are within the range for metal tape.

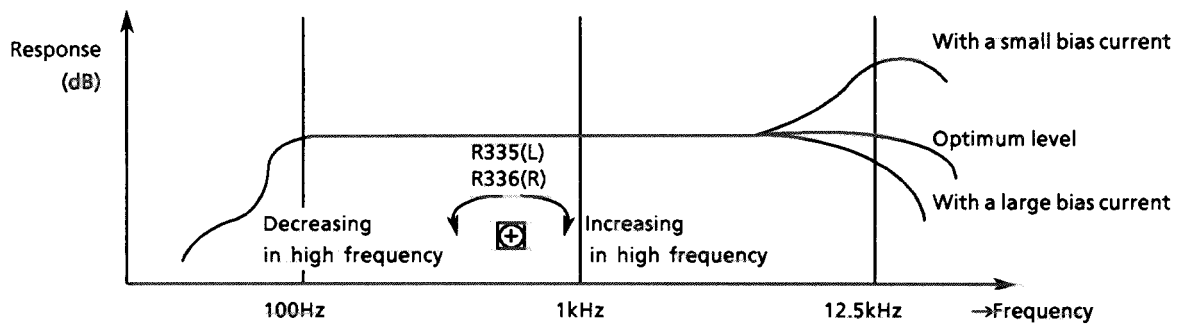


Figure 5

3. Electrical Adjustments (Make the following adjustments after adjusting the head azimuth.)

In principle, the adjustments should be made in the following sequence.
Set the NR switch to OFF and the BEAT CUT switch to "1".
Adjustments marked with an asterisk (*) should always be made after the head is replaced **0dBs = 0.775V**

	Item	Adjustment Method	Adjustment Location	Standard Value	Remarks
1	Tape Speed	1. Connect a frequency counter to the DOLBY TP(figure 1) and play back VTT-712. 2. Normal speed Adjustment 1) Mechanism B Play back deck B to adjust the semi-fixed resistor R948. 2) Mechanism A Play back deck A to confirm that the difference between deck A and deck B is within ±51Hz. 3. High-speed adjustment 1) Mechanism B Play back deck B, check 6000Hz.	R948	3,000 Hz ±10Hz 6,000Hz ±600Hz	1) Adjust the normal speed first, and perform the high speed adjustment.
*2	Standard level (Playback Level)	1. Connect an electronic voltmeter to the DOLBY TP (figure 1). Play back VTT-724 (1 kHz : −4dBs) to adjust the semi-fixed resistors.	**Deck A** L: R221 R: R222 **Deck B** L: R389 R: R390	−5.5dBs (411mV) ±1dB	1) The playback level varies when the head is replaced so should be adjusted. Use an electronic voltmeter with an impedance of 100 kΩ or more.
*3	Playback Frequency Response	1. Connect an electronic voltmeter to the DOLBY TP (figure 1). 2. Play VTT-703L (10kHz : −10dBs) and adjust semi-fixed resistors to obtain the standard values.	**Deck A** L: R203 R: R204 **Deck B** L: R205 R: R206	−11.5dBs (206mV) ±3dB	—
*4	Recording Bias Frequency	1. Connect a frequency counter to the BIAS TP(figure 1), and perform a recording to adjust bias frequency.	L335	100 kHz +10kHz -5kHz	—
*5	Record / Play Frequency Response (Bias current)	1. Supply 1kHz and 12.5kHz with 30mV signals to PHONO/AUX terminals respectively to record them. 2. Connect an electronic voltmeter to the DOLBY TP (figure 1) to confirm the recorded values. 3. If the values are not satisfied, adjust the semi-fixed resistors and record the signal again to confirm the recorded values.	L : R335 R : R336	0±2 dB with 1 kHz as the standard.	**Refer to figure 5 below.** 1) The recording and playback frequency response of a cassette deck are adjusted by adjusting the bias. 2) Perform the adjustment with normal tape and confirm that the values are within the range for metal tape.

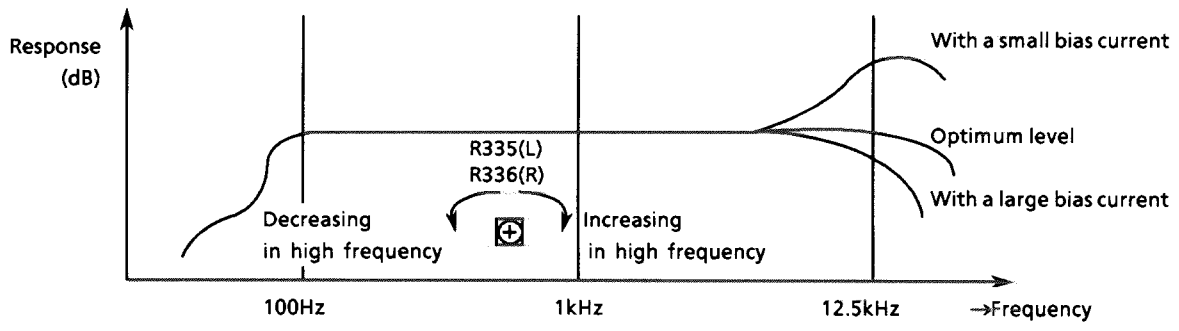
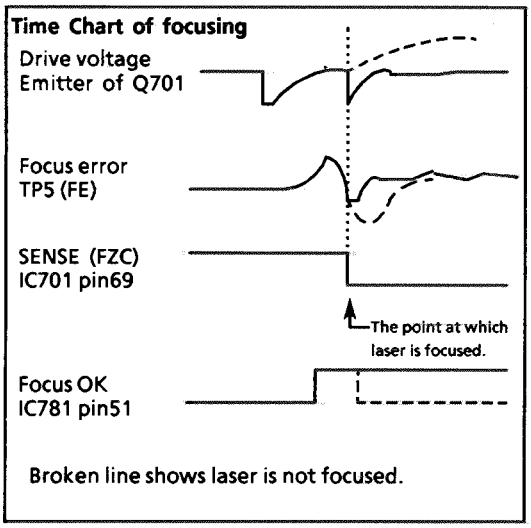
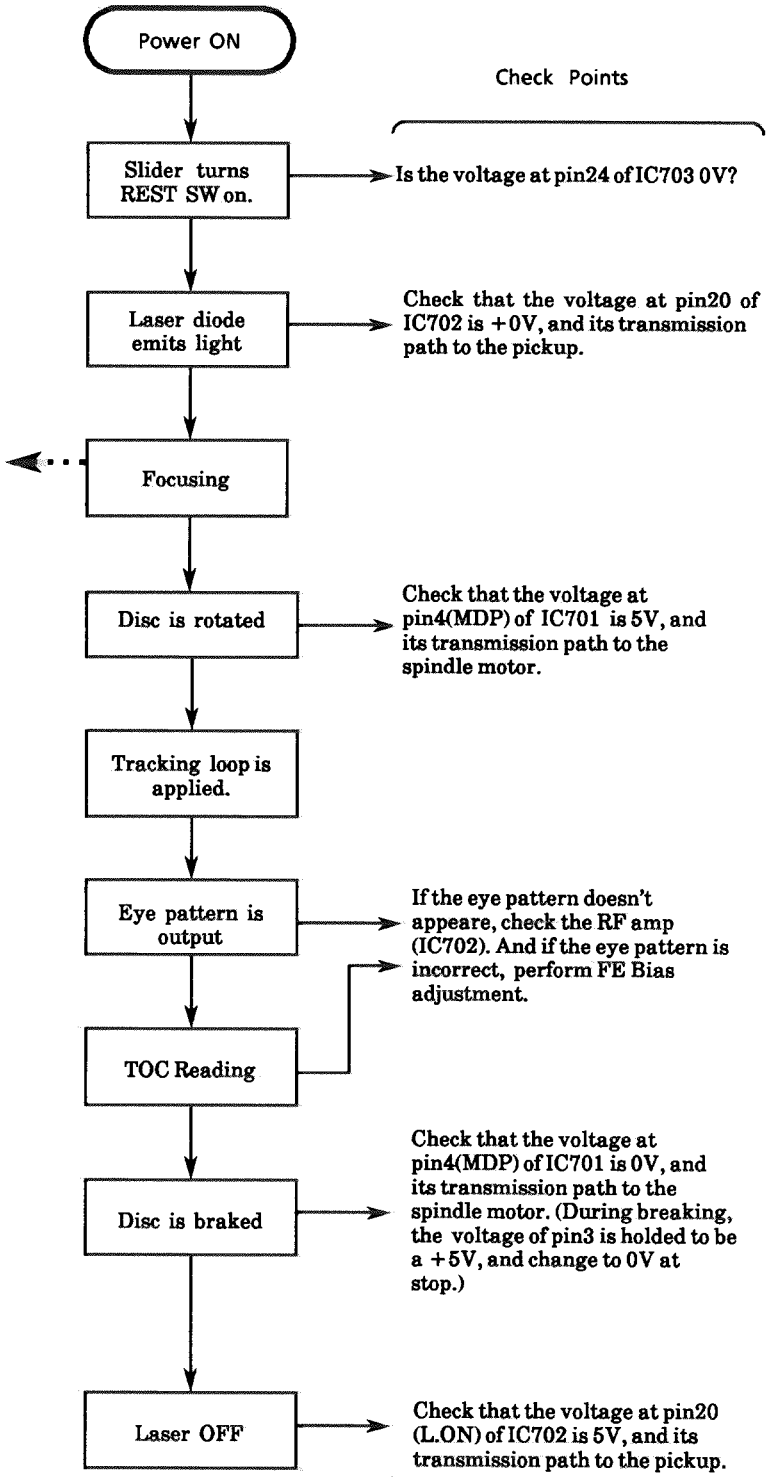


Figure 5

	Item	Adjustment Method	Adjustment Location	Standard Value	Remarks
* 6	Record / Playback Sensitivity	1. Input a 1 kHz (−8.2dBs: 300mV) signal to PHONO / AUX terminals and record it on the left and right channels . 2. Connect an electronic voltmeter to the DOLBY TP (figure 1) to confirm the recorded values. 3. If the values are not satisfied, adjust the semi-fixed resistors and record the signal again to confirm the recorded values.	L : R367 R : R368	−5.5dBs (411mV) ±1dB	Adjust with normal tape and make sure that the left / right level difference is 1.0dB or less
7	Erase ratio check	1. Record a music source using the Metal tape. 2. Rewind and erase the recorded section. 3. Comfirm nothing can be heard.	—	—	—
8	Music Scan	1. Make sure not to work the music scanning operation at the start of tape wind using TMT-6237. 2. Make sure to work the music scanning operation at the end of tape wind using TMT-6247.	—	—	—

Flow of Functional Operation Until TOC is Read



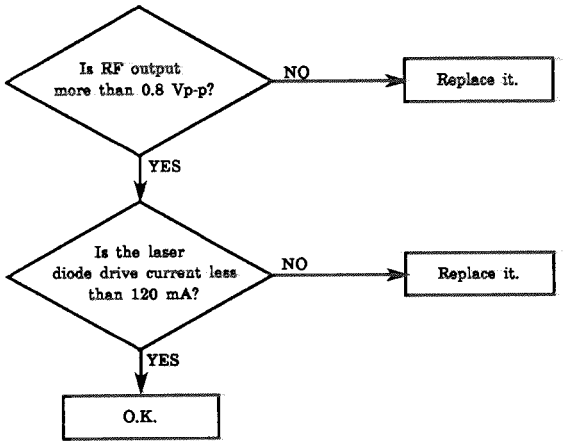

Power ON
Check Points
Slider turns REST SW on.
Is the voltage at pin24 of IC703 0V?
Laser diode emits light
Check that the voltage at pin20 of IC702 is +0V, and its transmission path to the pickup.
Focusing
Disc is rotated
Check that the voltage at pin4(MDP) of IC701 is 5V, and its transmission path to the spindle motor.
Tracking loop is applied.
Eye pattern is output
If the eye pattern doesn't appeare, check the RF amp (IC702). And if the eye pattern is incorrect, perform FE Bias adjustment.
TOC Reading
Disc is braked
Check that the voltage at pin4(MDP) of IC701 is 0V, and its transmission path to the spindle motor. (During breaking, the voltage of pin3 is holded to be a +5V, and change to 0V at stop.)
Laser OFF
Check that the voltage at pin20 (L.ON) of IC702 is 5V, and its transmission path to the pickup.

Maintenance of Laser Pickup

(1) Life of the laser diode

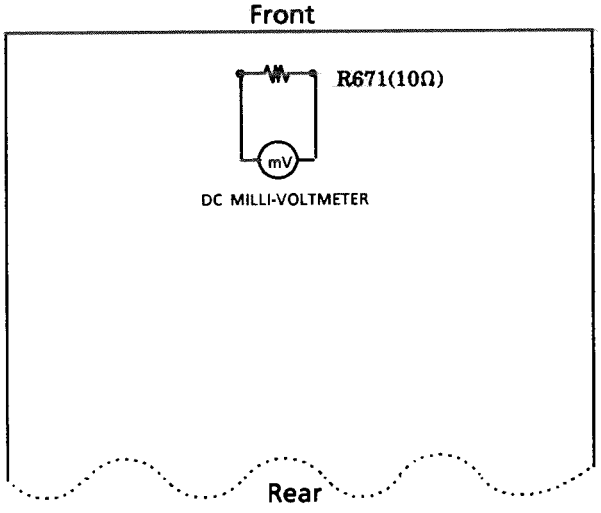
When the life of the laser diode has expired, the following symptoms will appear.

1. The level of RF output (EFM output: amplitude of eye pattern) will be low.
2. The drive current required by the laser diode will be increased.
   In such a case, check the life of the laser diode by the flowchart below



(2) Measurement of laser diode drive current

Measure the voltage across the resistor R671 by using a milli-voltmeter. When the voltage is more than 1.2V, it shows that the life of the laser diode has expired.



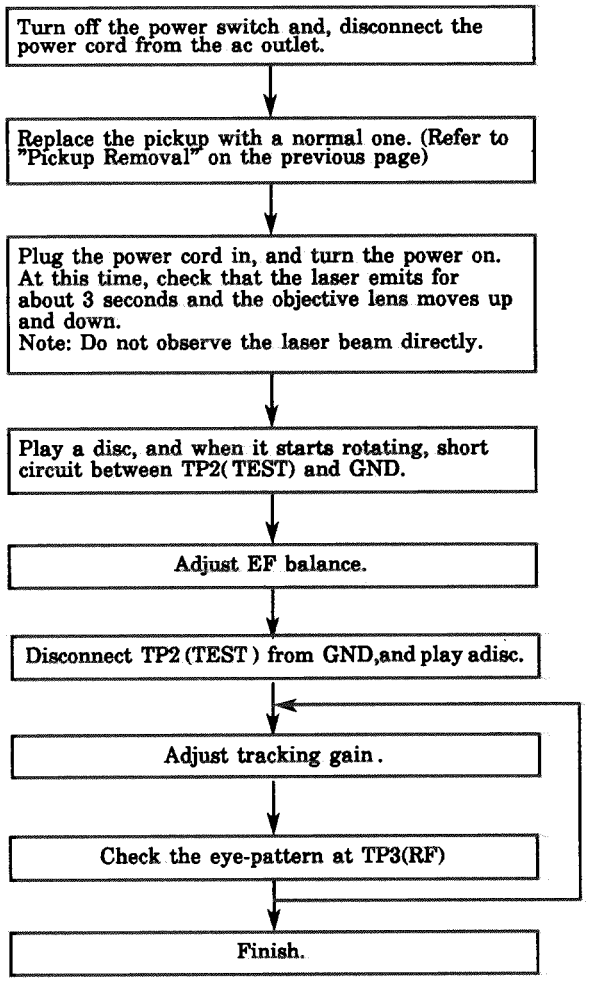
(3) Semi-fixed resistor on the APC PC board

The semi-fixed resistor on the APC printed circuit board which is attached to the pickup is used to adjust the laser power. Since this adjustment should be performed to match the characteristics of the whole optical block, do not touch the semi-fixed resistor.

If the laser power is lower than the specified value, the laser diode is almost worn out, and the laser pickup should be replaced.

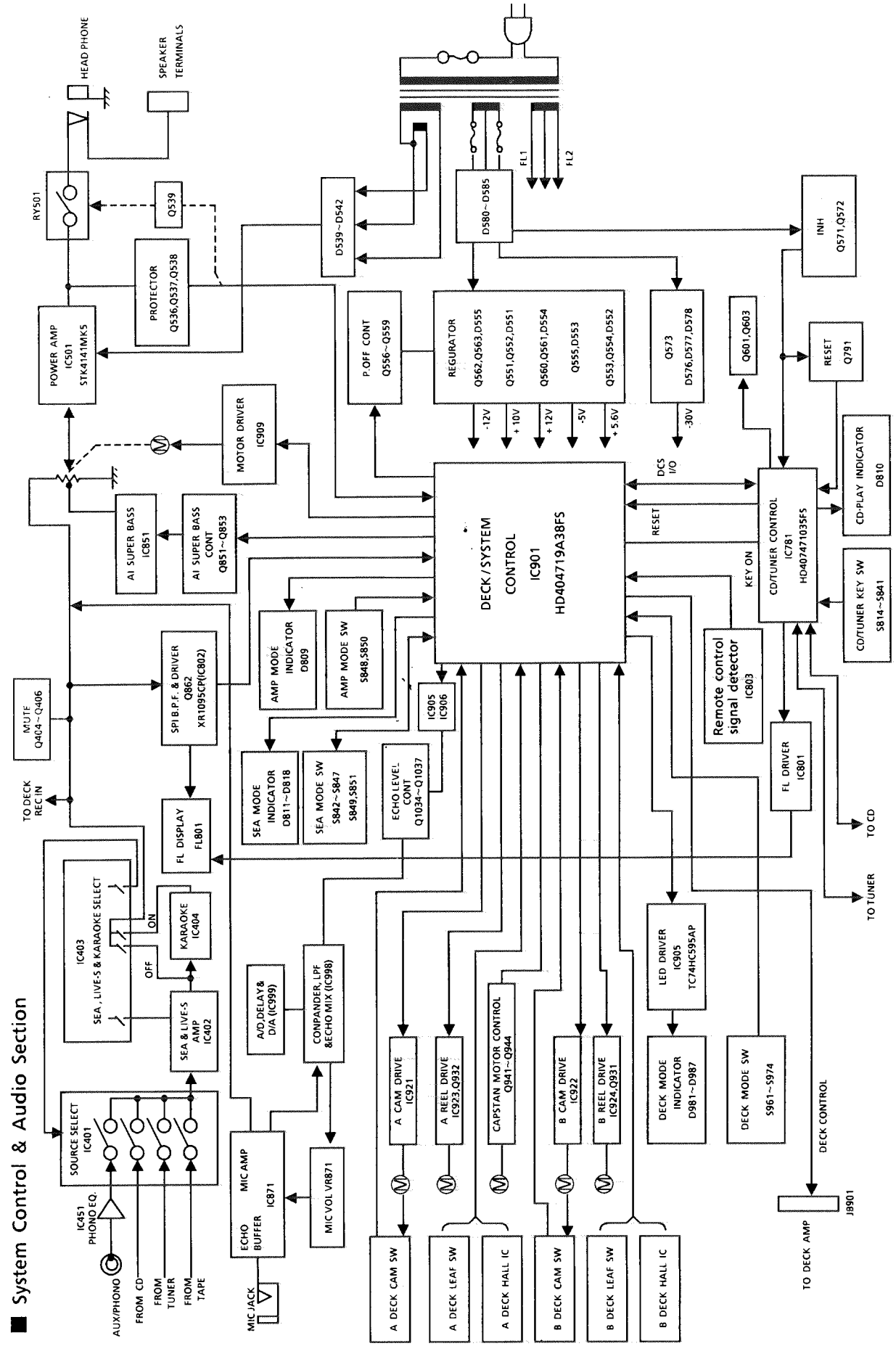
If the semi-fixed resistor is adjusted while the pickup is functioning normally, the laser pickup may be damaged due to excessive current.

Replacement of Laser Pickup

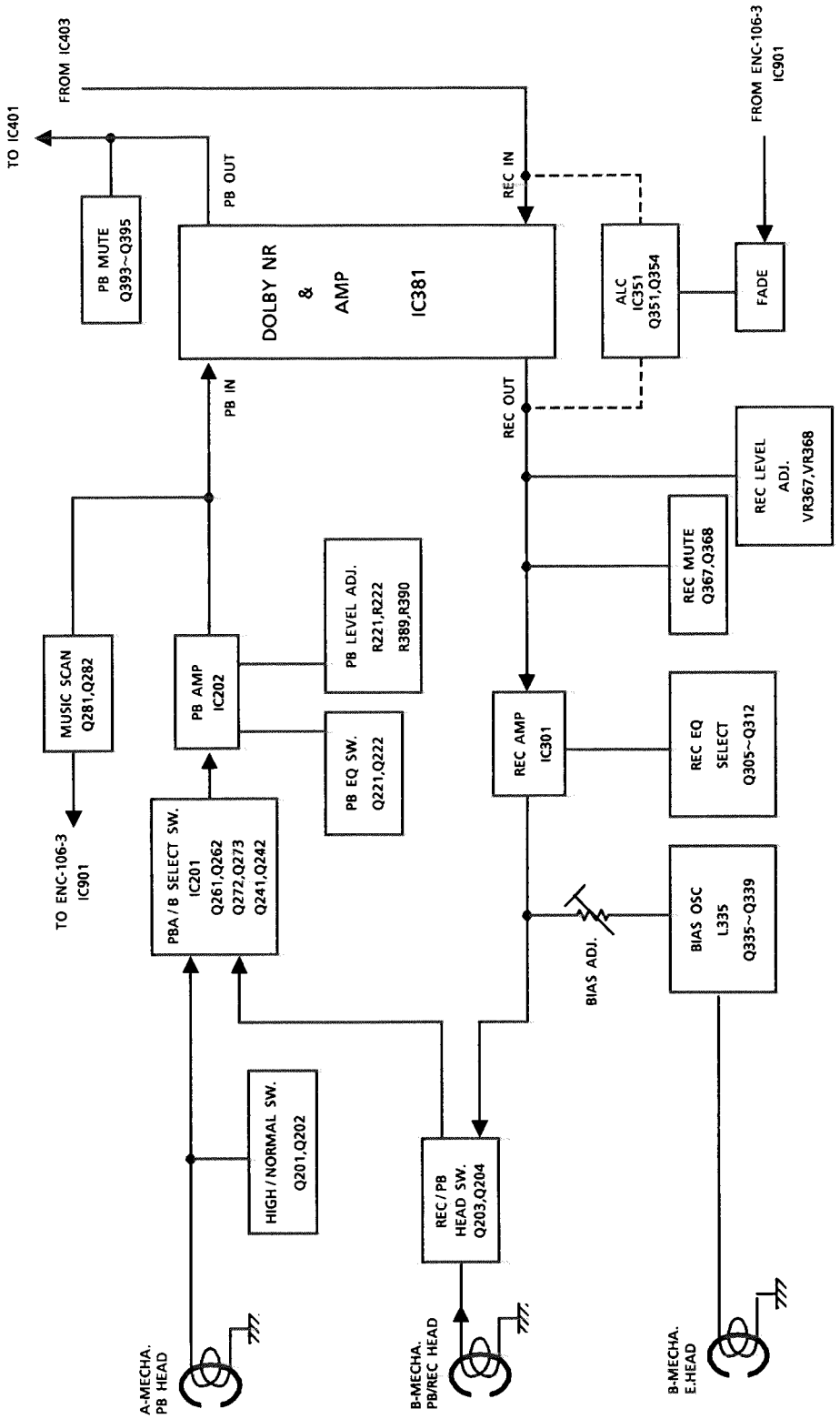

Turn off the power switch and, disconnect the power cord from the ac outlet.
Replace the pickup with a normal one. (Refer to "Pickup Removal" on the previous page)
Plug the power cord in, and turn the power on. At this time, check that the laser emits for about 3 seconds and the objective lens moves up and down.
Note: Do not observe the laser beam directly.
Play a disc, and when it starts rotating, short circuit between TP2(TEST) and GND.
Adjust EF balance.
Disconnect TP2 (TEST) from GND,and play adisc.
Adjust tracking gain .
Check the eye-pattern at TP3(RF)
Finish.

Note: Since one adjustment may affect other settings, repeat these adjustments a few times.

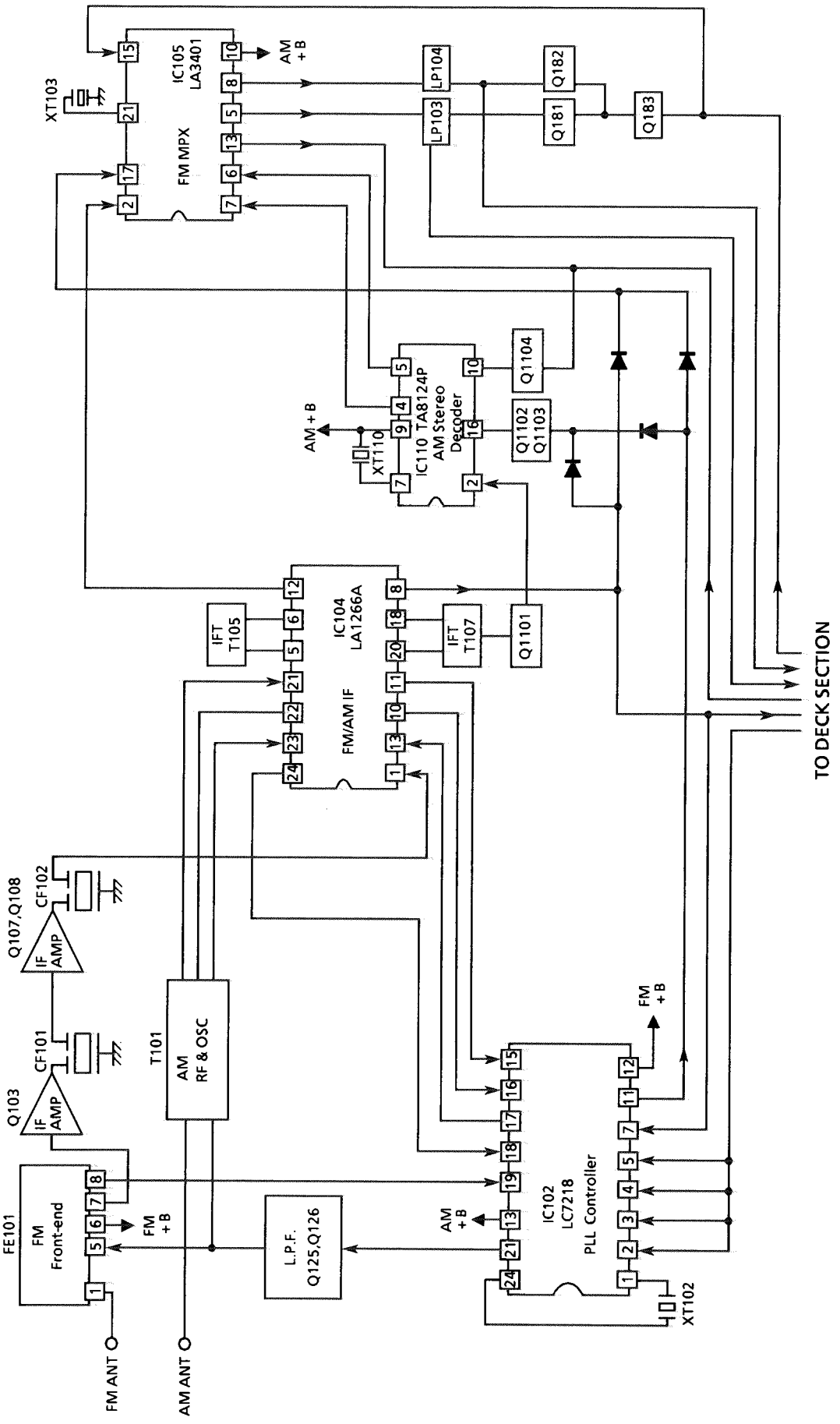
Block Diagrams

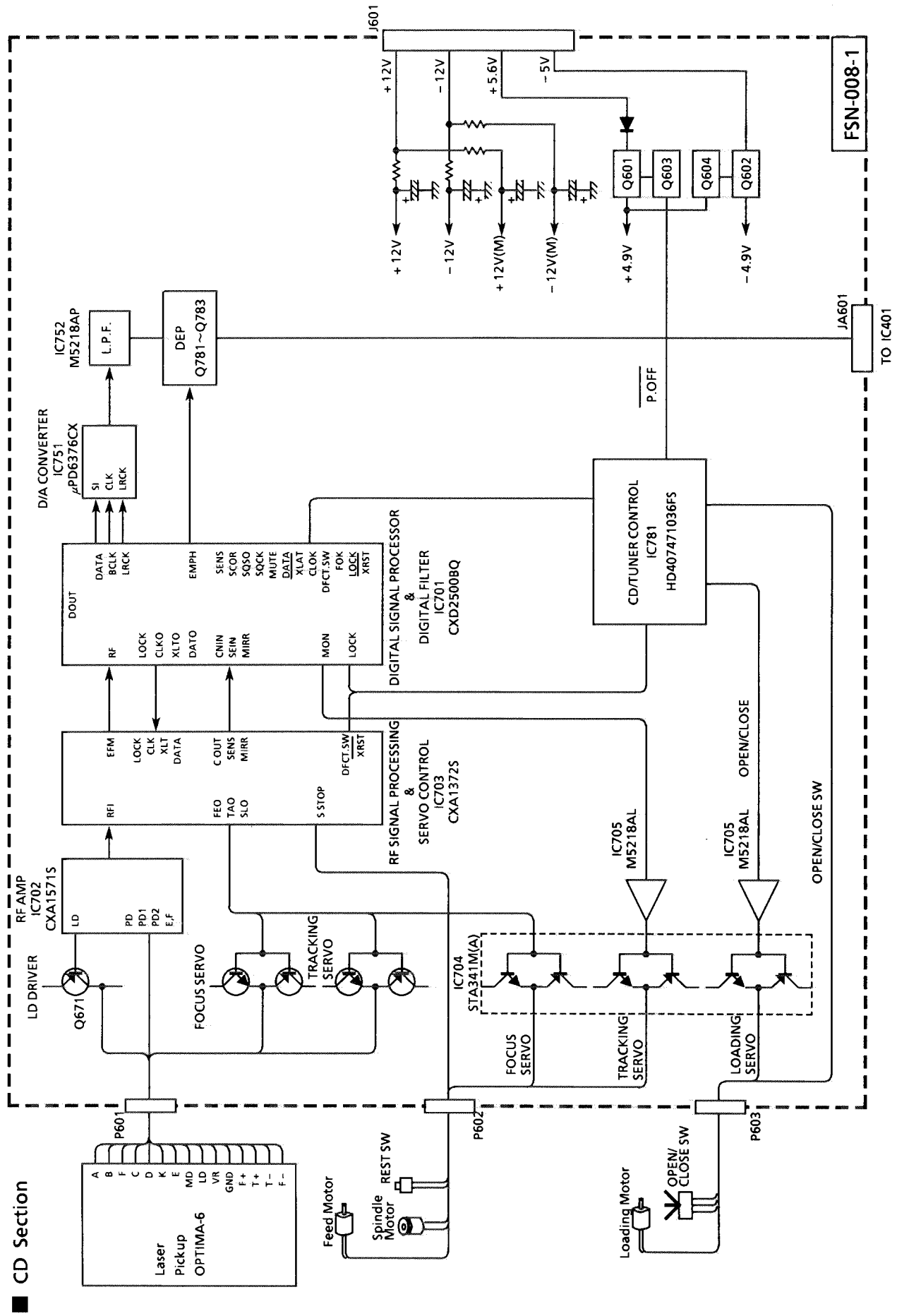


■ Cassette Deck Section



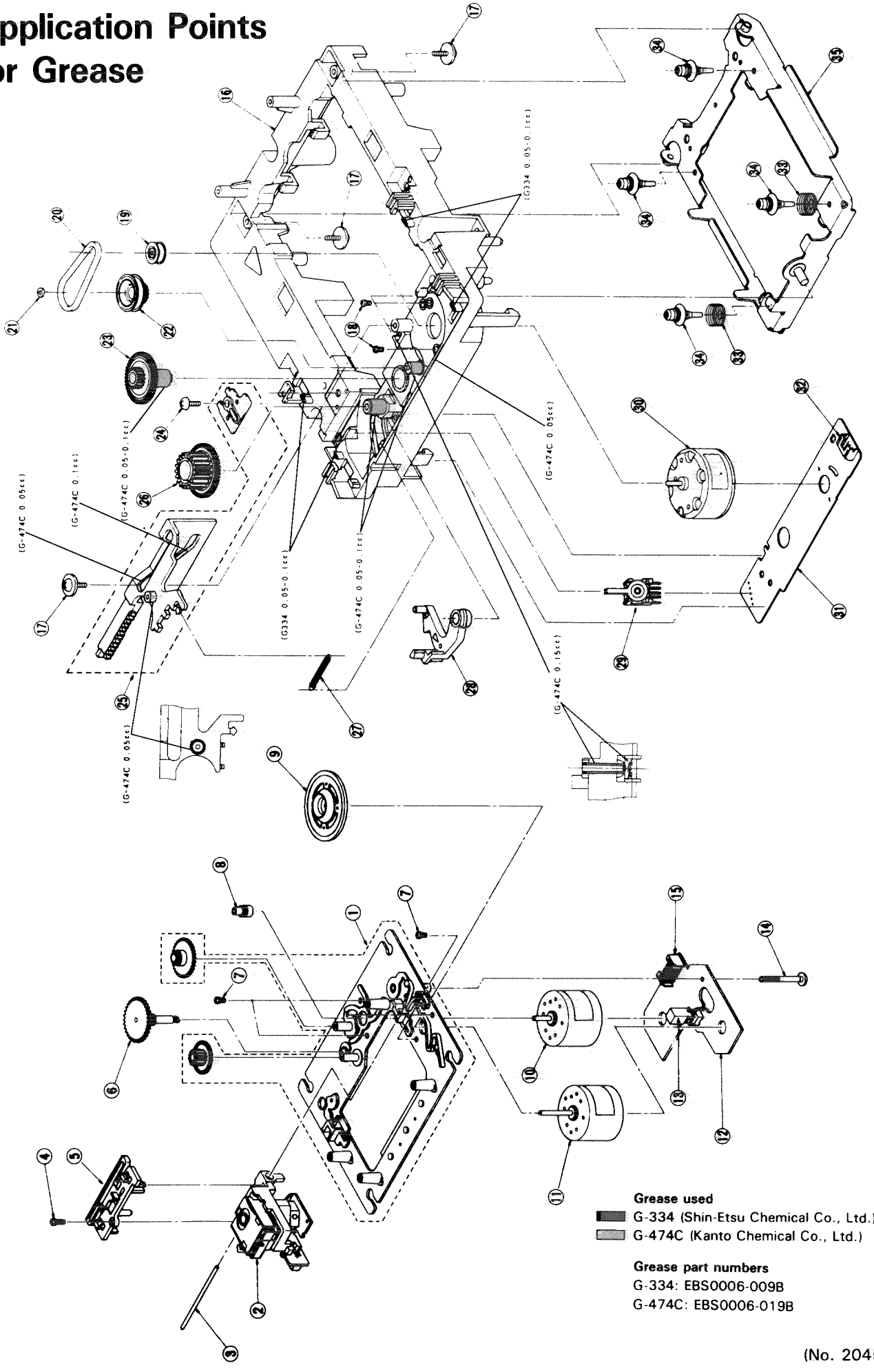
■ Tuner Section




FSN-008-1
J601
+12V
-12V
+5.6V
-5V
Q601
Q603
Q604
Q602
+12V
-12V
+12V(M)
-12V(M)
+4.9V
-4.9V
JA601
TO IC401
P.OFF
IC752
M5218AP
L.P.F.
DEP
Q781~Q783
D/A CONVERTER
IC751
μPD6376CX
SI
CLK
LRCK
DIGITAL SIGNAL PROCESSOR
&
DIGITAL FILTER
IC701
CXD2500BQ
CD/TUNER CONTROL
IC781
HD407471036FS
RF SIGNAL PROCESSING
&
SERVO CONTROL
IC703
CXA1372S
RF AMP
IC702
CXA1571S
IC705
M5218AL
IC705
M5218AL
OPEN/CLOSE SW
IC704
STA341M(A)
LD DRIVER
Q671
FOCUS SERVO
TRACKING SERVO
FOCUS SERVO
TRACKING SERVO
LOADING SERVO
P601
P602
P603
Laser Pickup OPTIMA-6
Feed Motor
Spindle Motor
REST SW
Loading Motor
OPEN/CLOSE SW

■ CD Section

Application Points for Grease



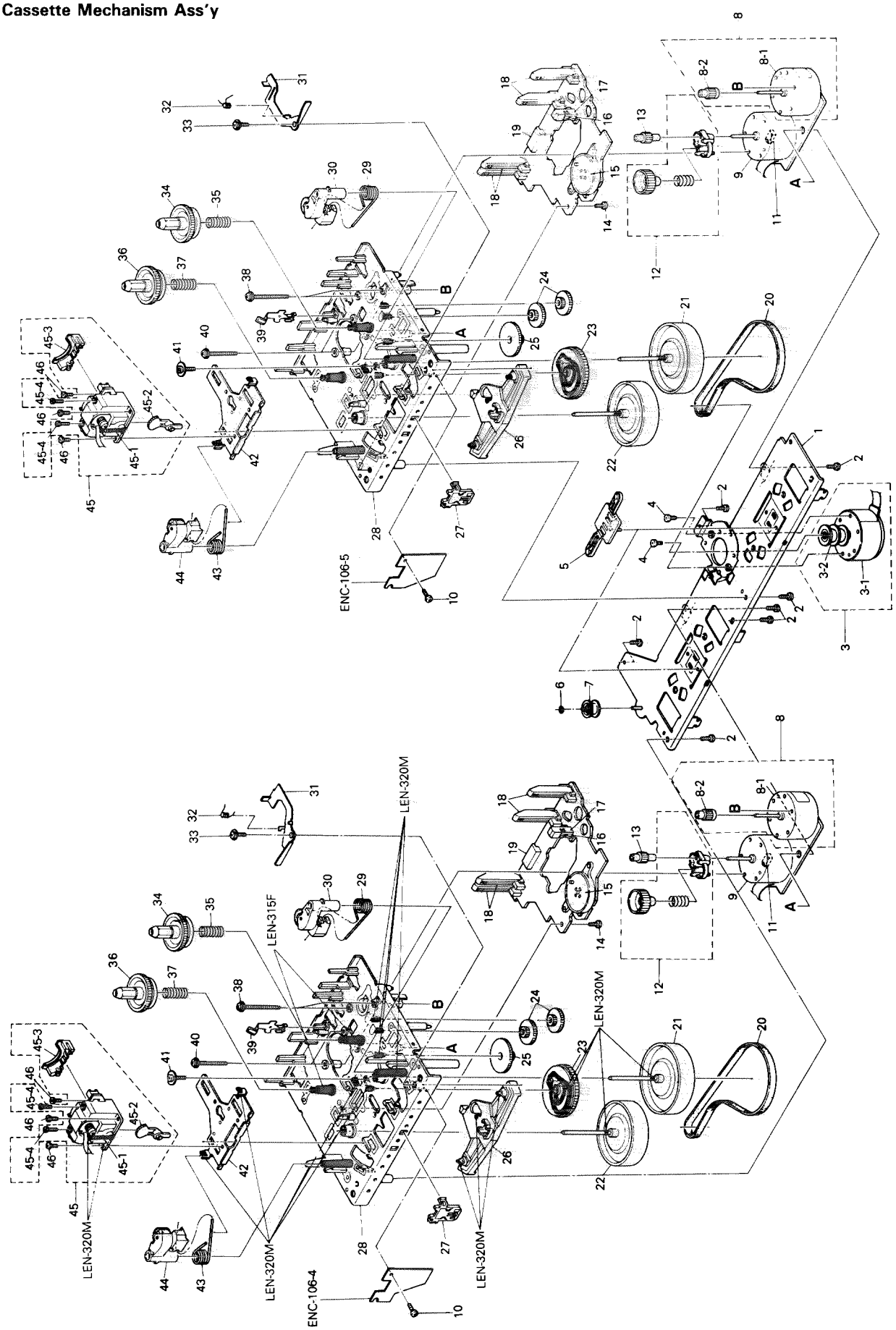
Grease used

G-334 (Shin-Etsu Chemical Co., Ltd.)
G-474C (Kanto Chemical Co., Ltd.)

Grease part numbers

G-334: EBS0006-009B
G-474C: EBS0006-019B

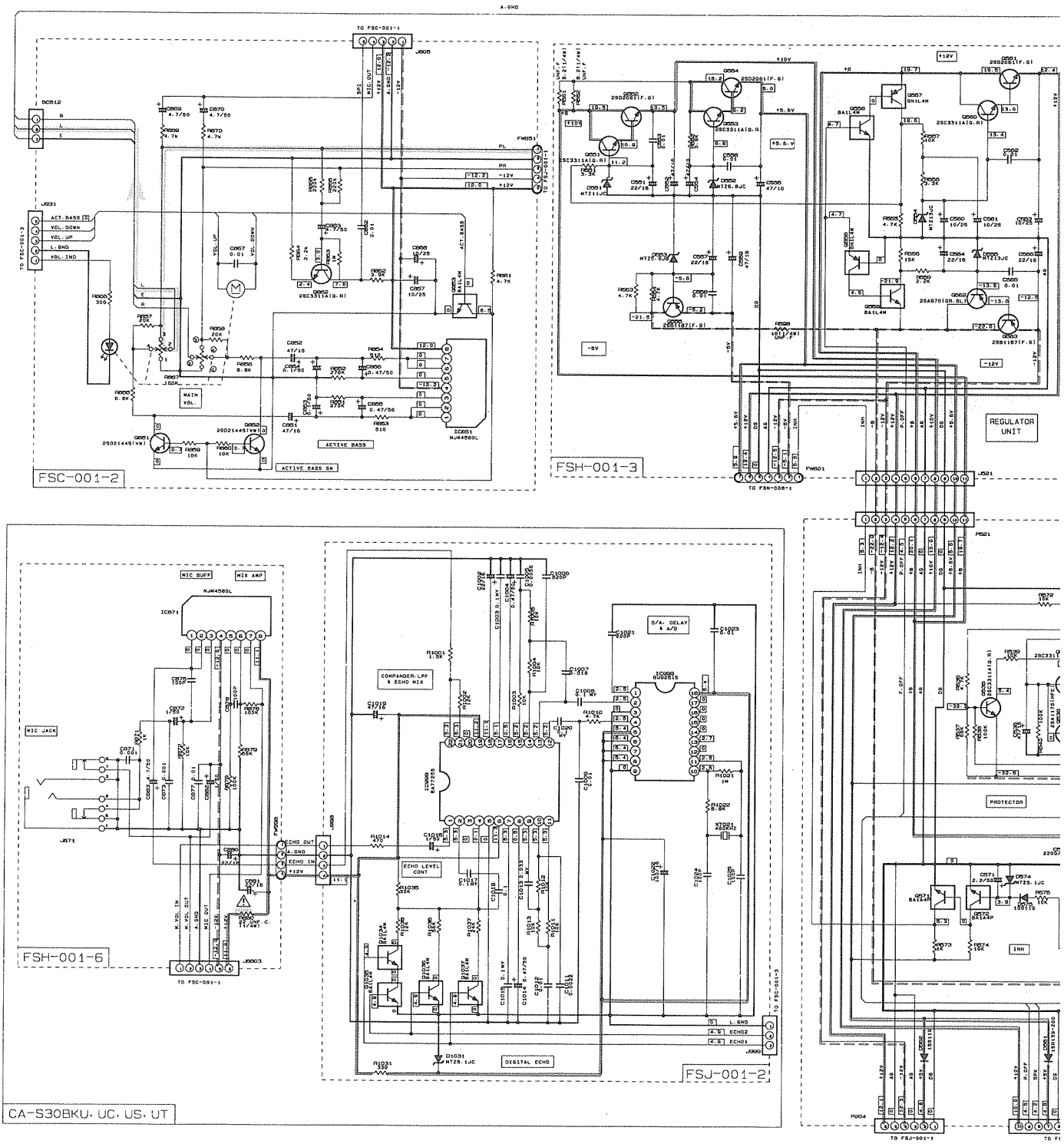
■ Cassette Mechanism Ass'y



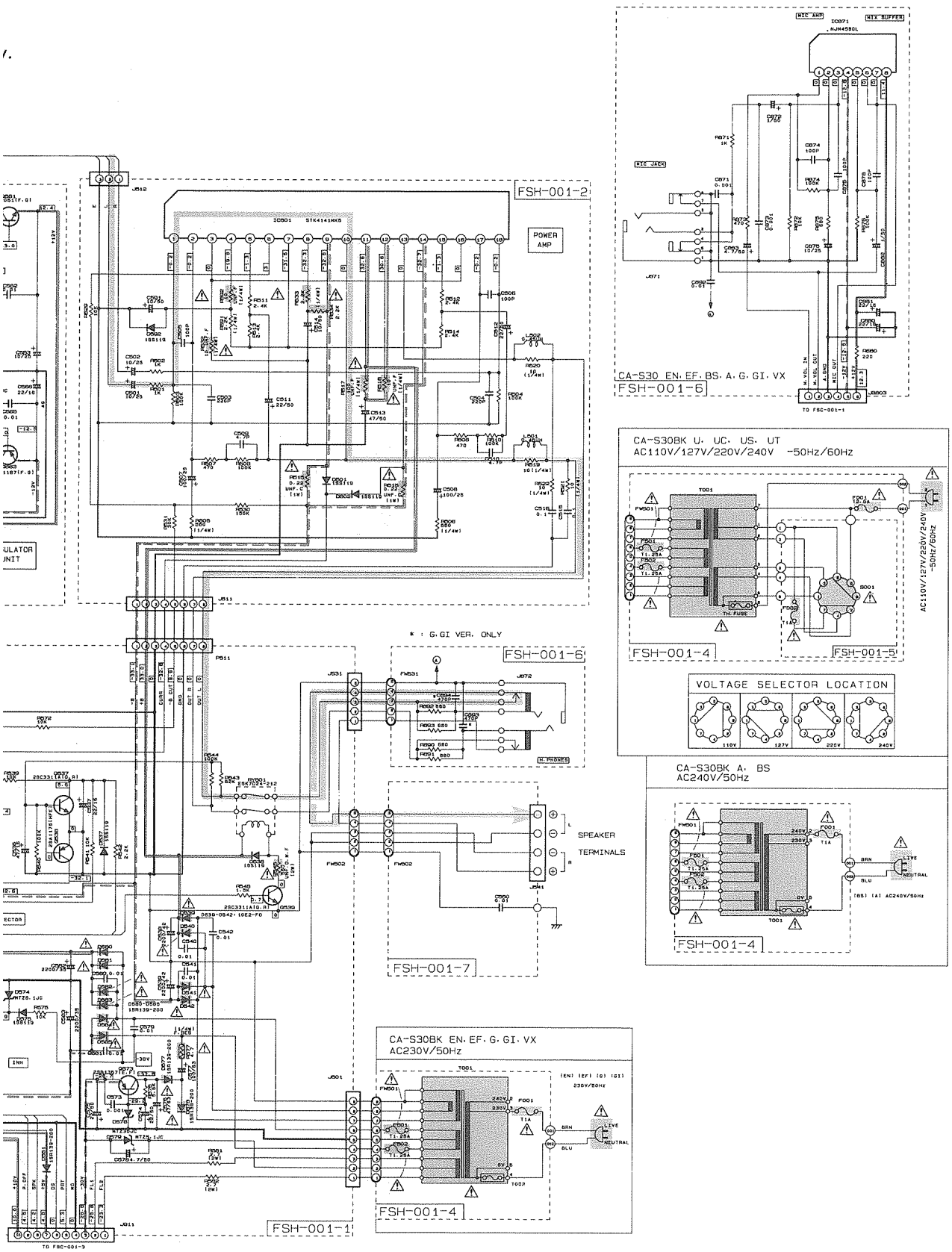
Schematic Diagrams ■ Power Supply & Audio Section

Notes:

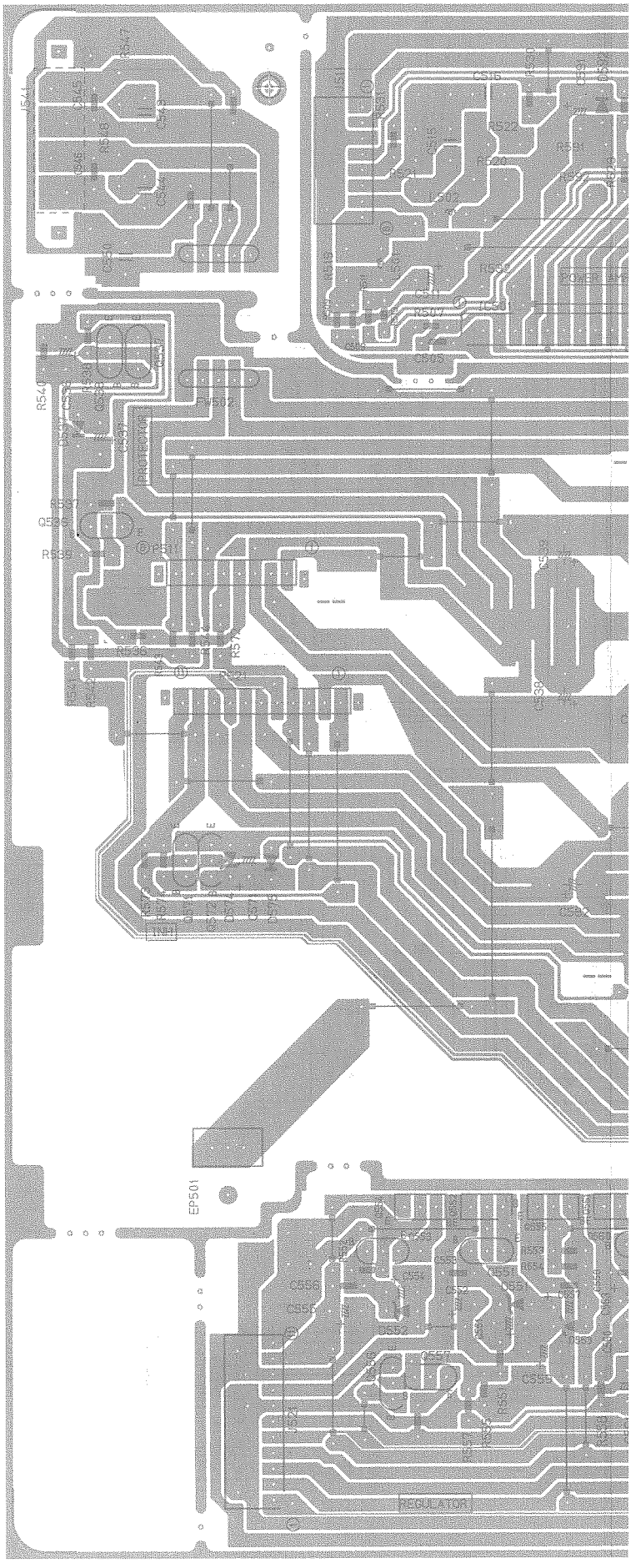
1. ——— indicates +B power supply.
2. - - - - - indicates −B power supply.
3. ▒▒▒ indicates main signal path.
4. ▒▒▒ indicates recording signal path.
5. When replacing the parts in the shaded area (▒▒▒) and those marked with ⚠ , be sure to use the designated parts to ensure safety. This is the standard circuit diagram.
6. The design and contents are subject to change without notice.

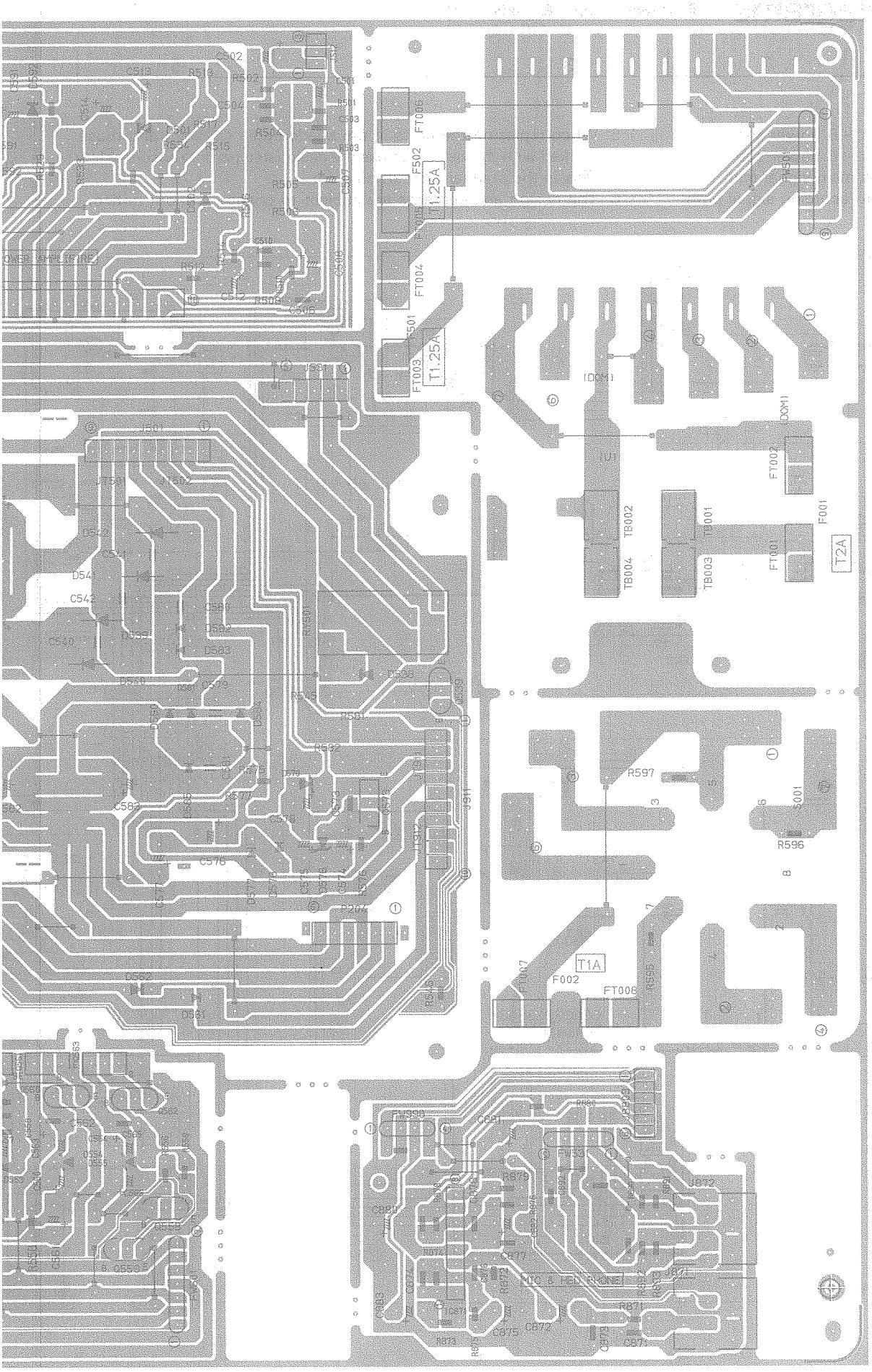


6 | 7 | 8 | 9 | 10


FSH-001-2
POWER AMP
FSH-001-6
CA-S30 EN. EF. BS. A. G. GI. VX
FSH-001-6
CA-S30BK U. UC. US. UT
AC110V/127V/220V/240V -50Hz/60Hz
FSH-001-4
FSH-001-5
VOLTAGE SELECTOR LOCATION
CA-S30BK A. BS
AC240V/50Hz
FSH-001-4
* : G. GI VER. ONLY
FSH-001-6
SPEAKER TERMINALS
FSH-001-7
CA-S30BK EN. EF. G. GI. VX
AC230V/50Hz
FSH-001-4
FSH-001-1

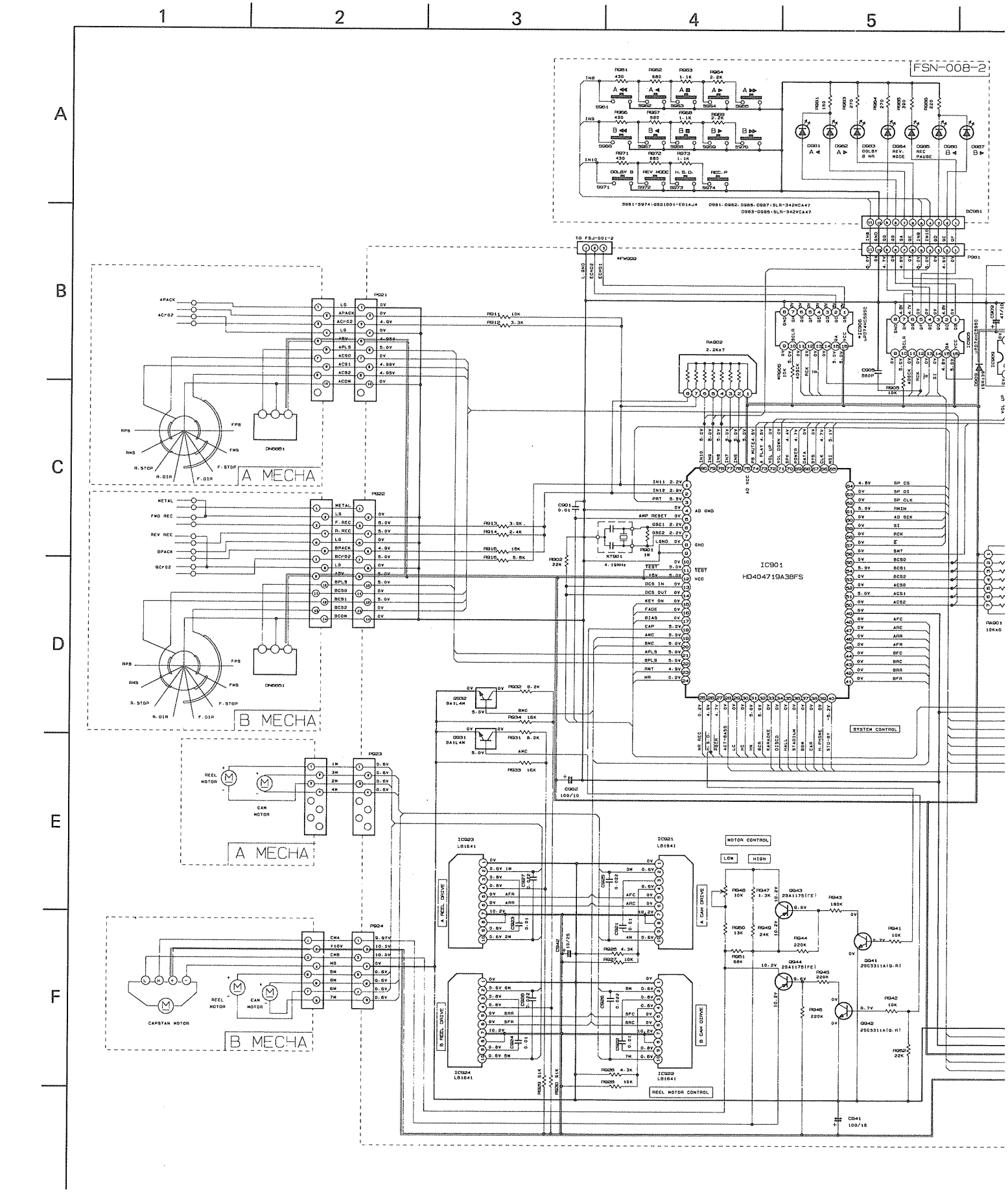
■ Power Supply, Echo & Mic Mix P.C. Board

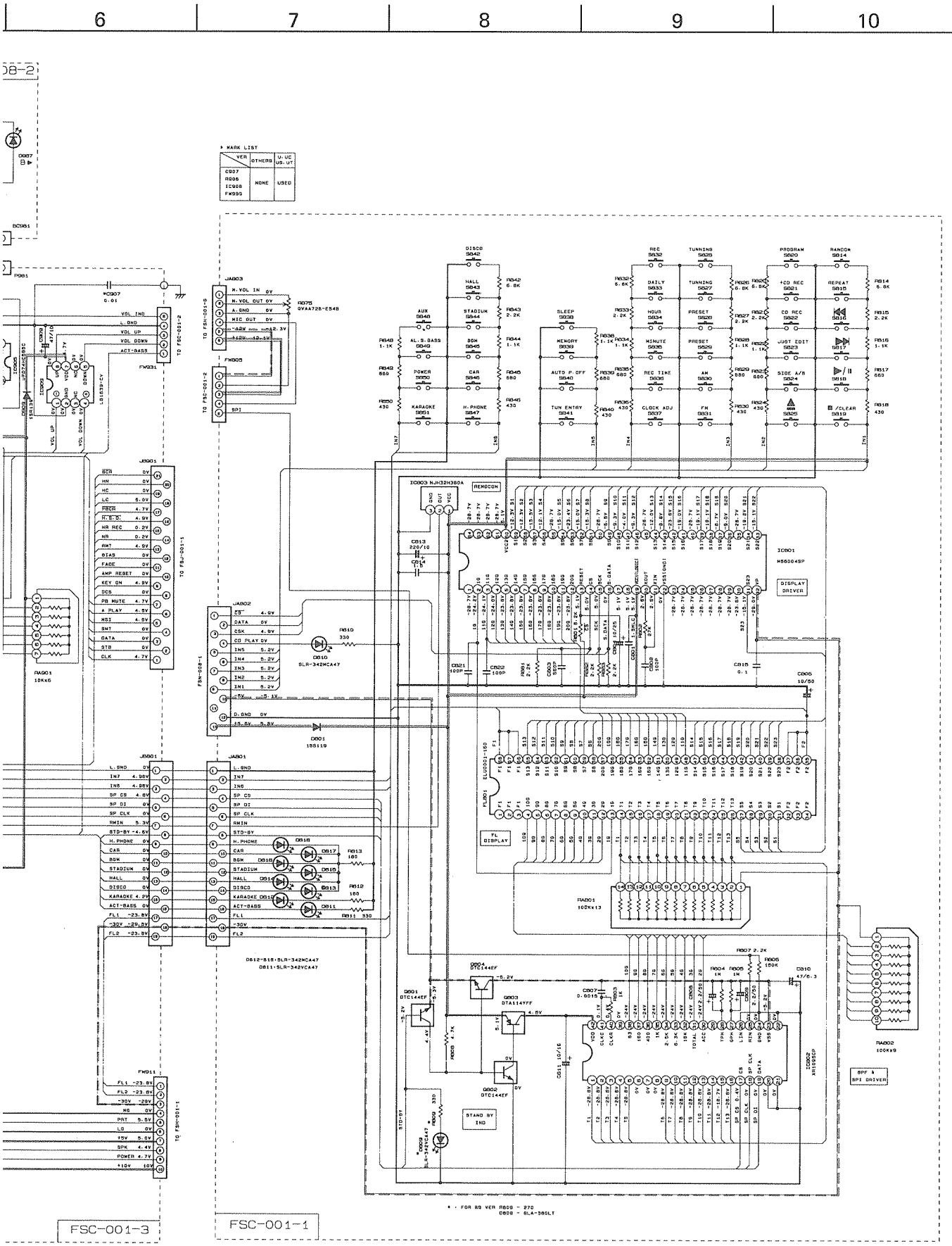



T1.25A
F502
FT004
FT003
T1.25A
F001
T2A
FT001
FT002
TB001
TB002
TB003
TB004
R597
R596
T1A
F002
FT006
MIC & HEADPHONE

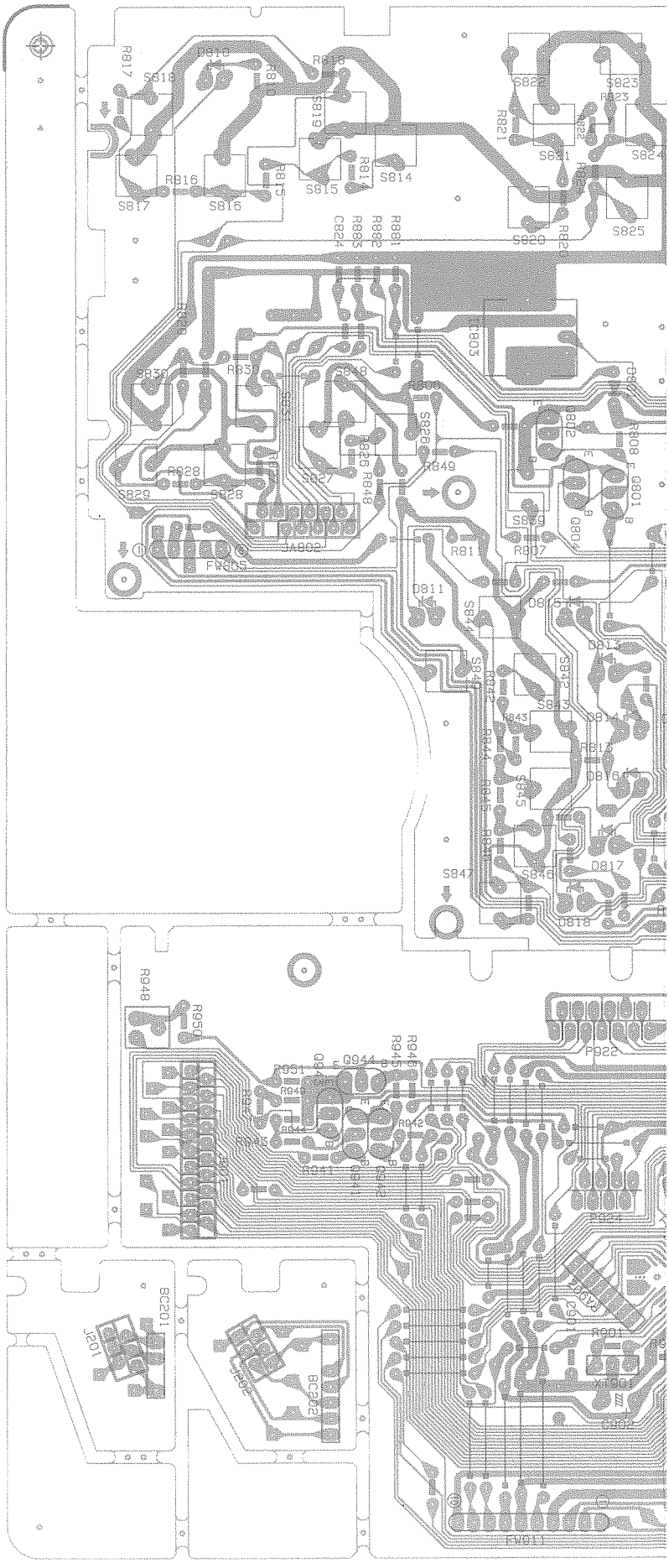
(No. 20457)

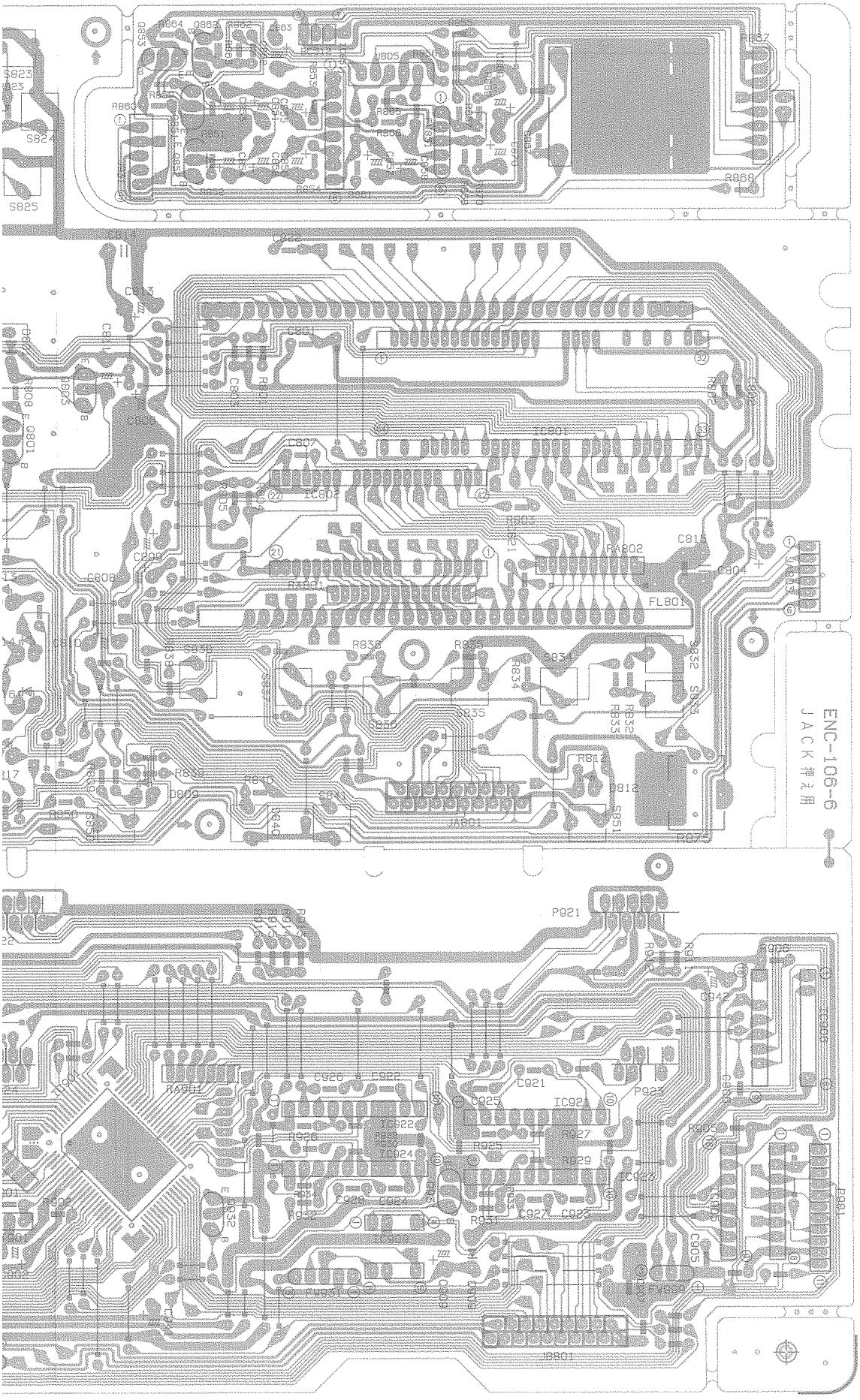
System Control Section




6
7
8
9
10
FSC-001-3
FSC-001-1

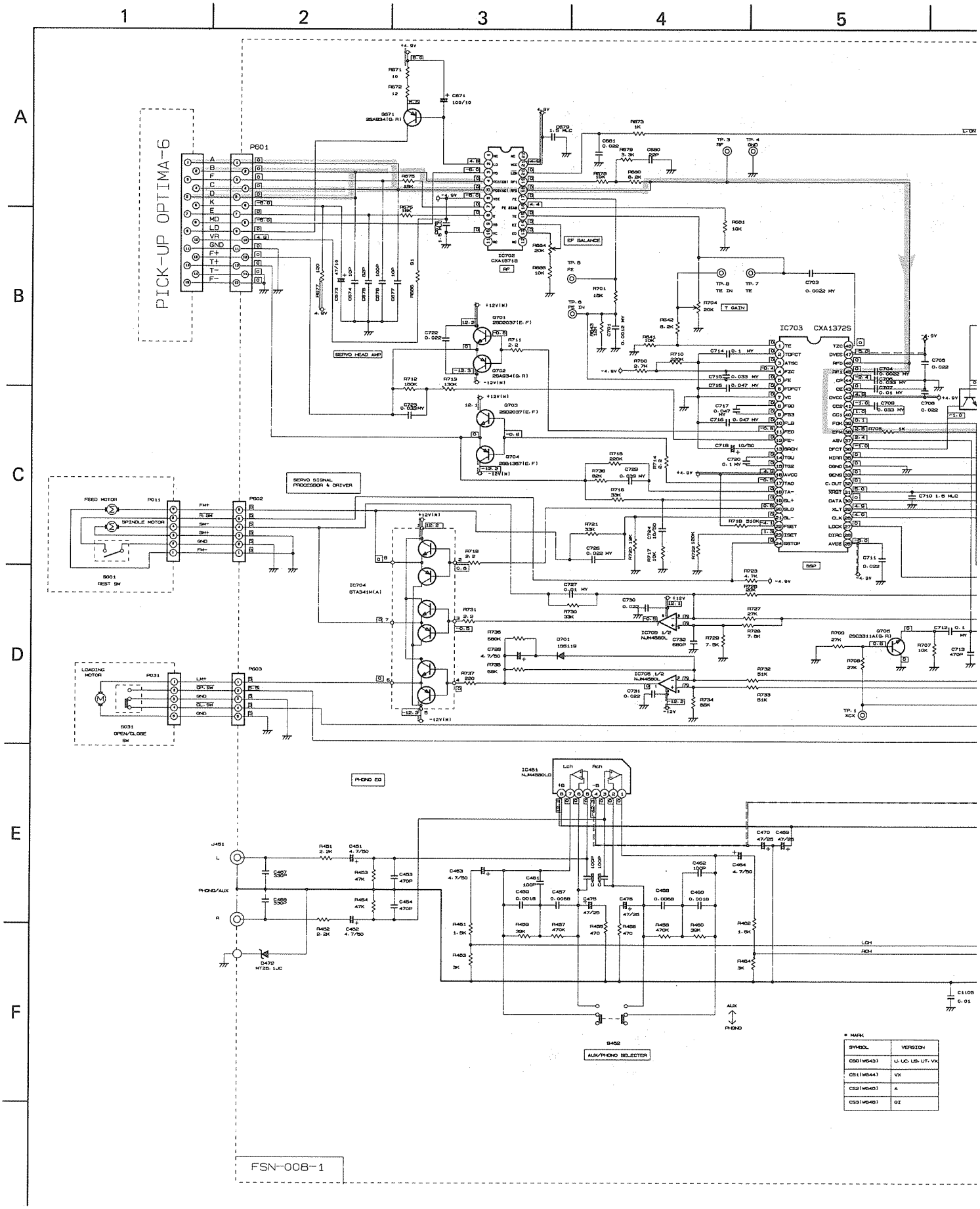
■ Front & Controller P.C. Board





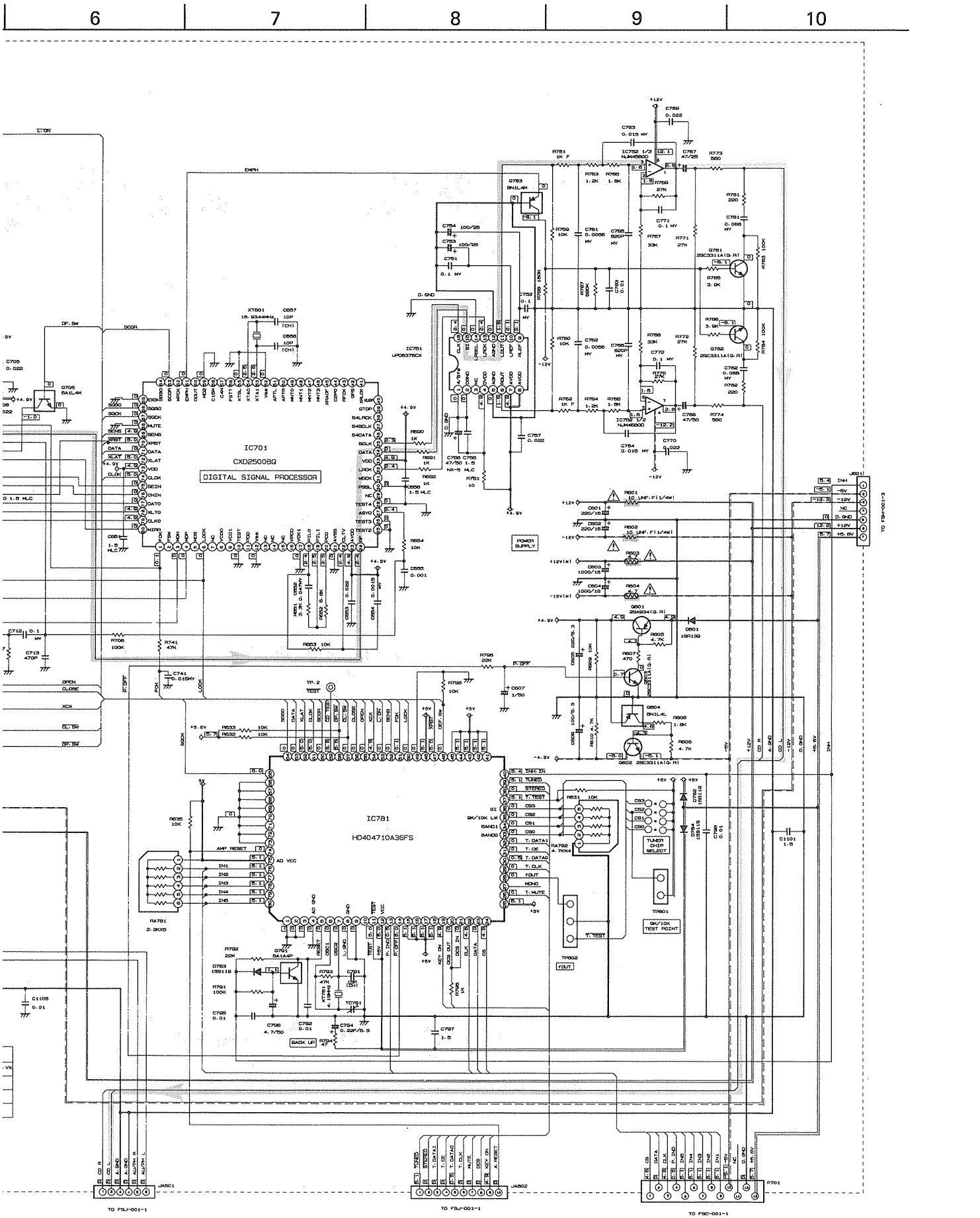
(No. 20457)

CD Section

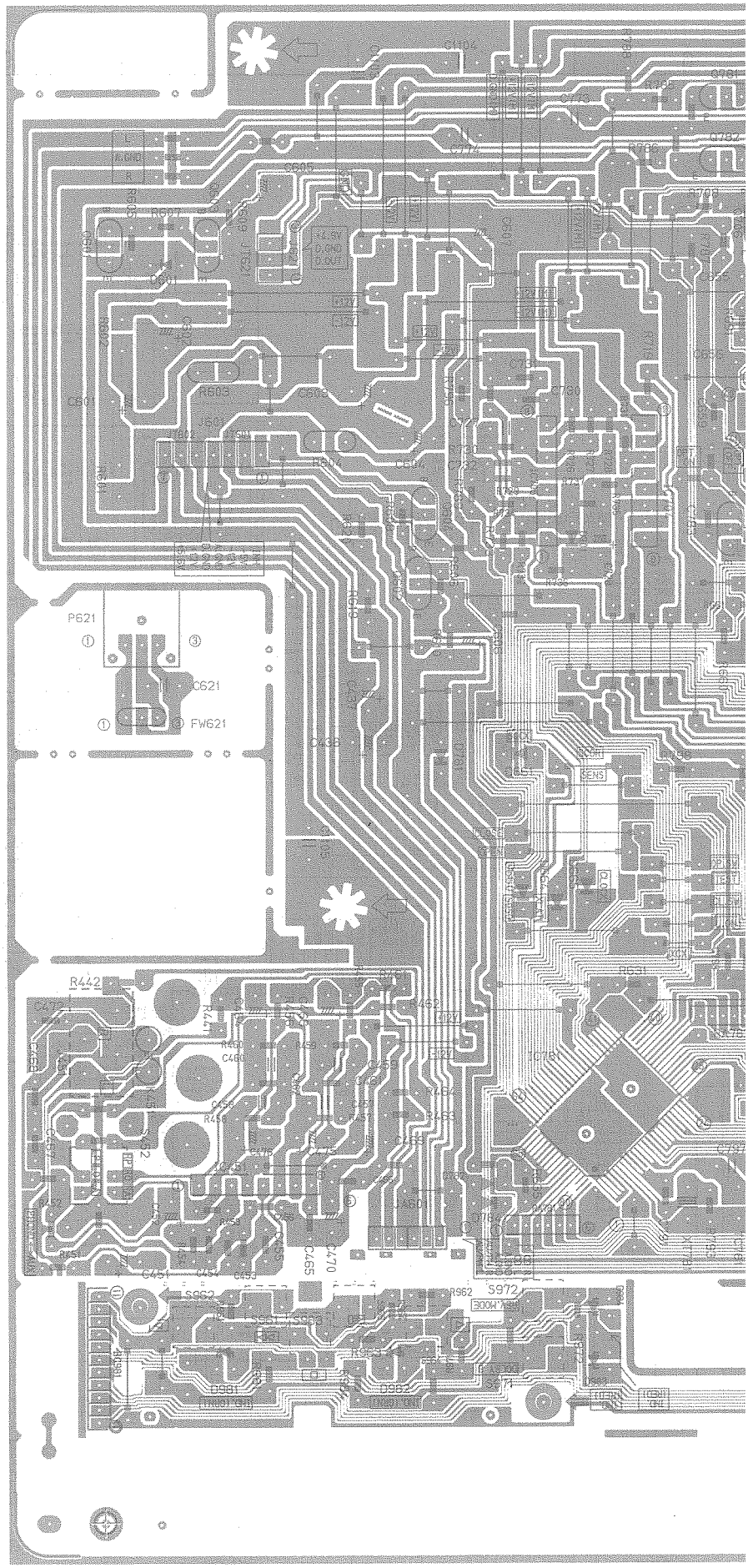


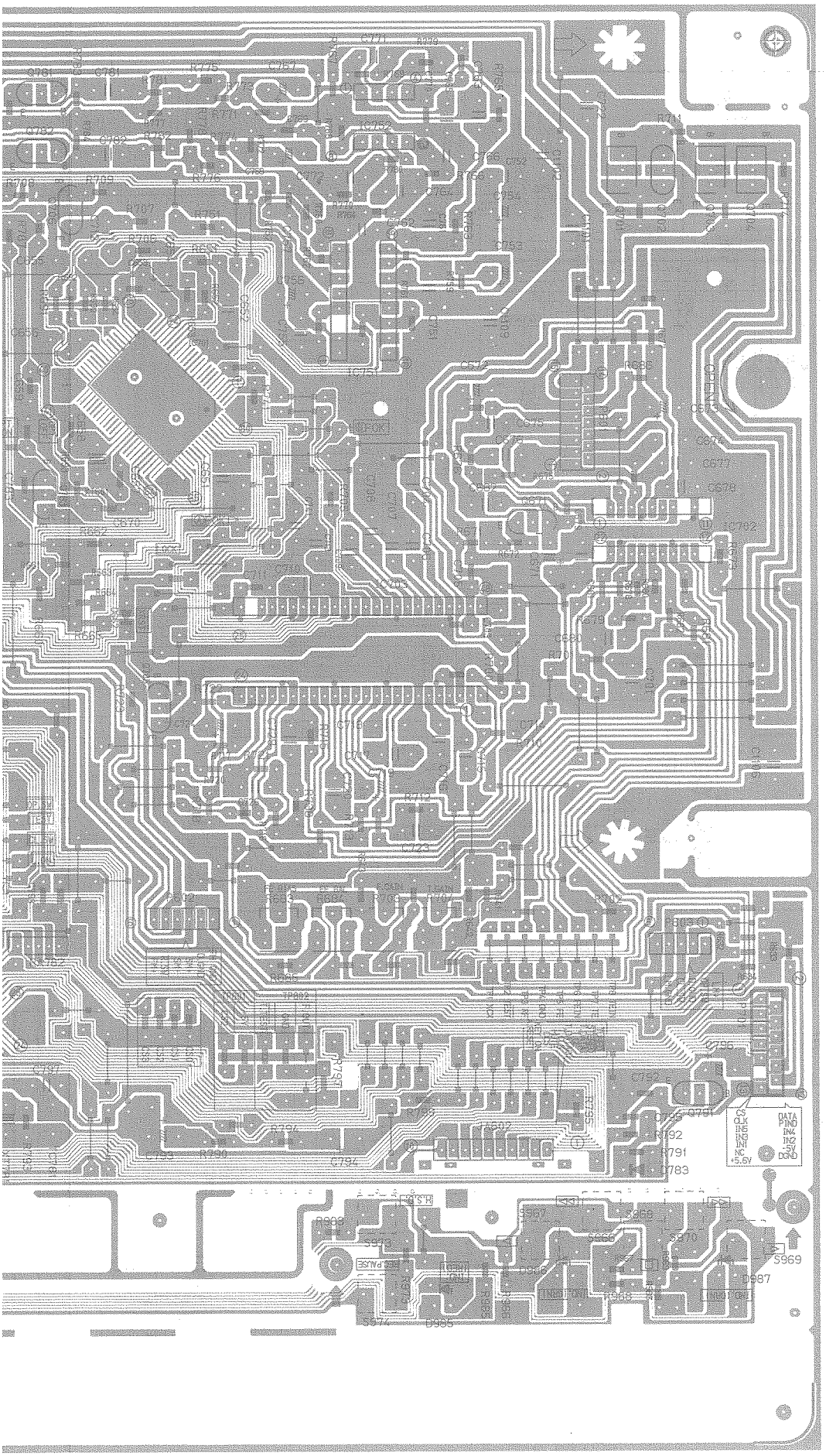
* MARK

SYMBOL	VERSION
CS01(W643)	U, UC, UB, UT, VK
CS1(W644)	VK
CS2(W645)	A
CS3(W646)	GI


6
7
8
9
10
IC701
CXD2500BQ
DIGITAL SIGNAL PROCESSOR
IC781
HD404710A36FS
IC751
μPD6378CX
POWER SUPPLY
TUNER CHIP SELECT
TEST POINT
TO FSJ-001-1
TO FSJ-001-1
TO FSC-001-1
TO FSH-001-3

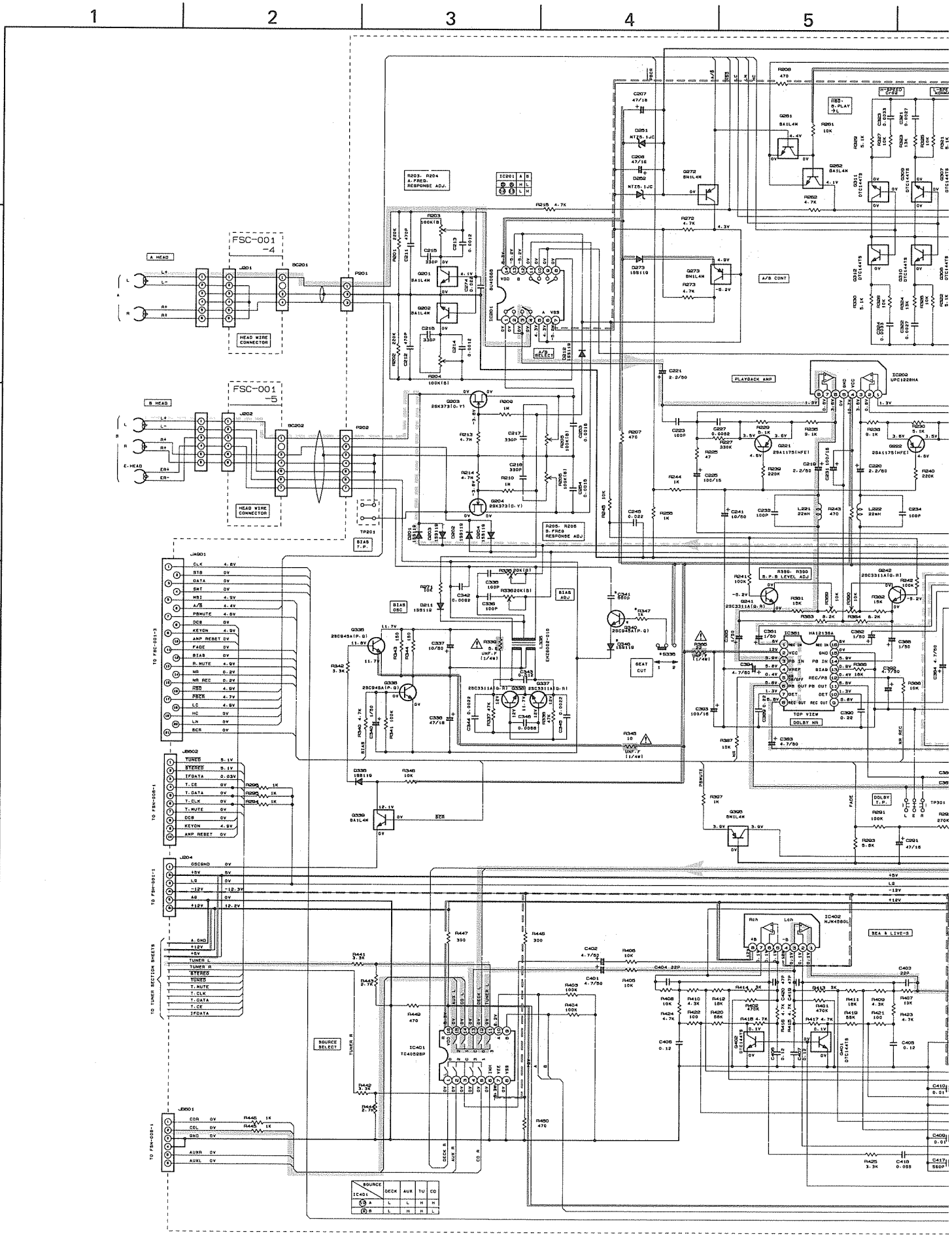
■ CD: Deck Switch P.C. Board

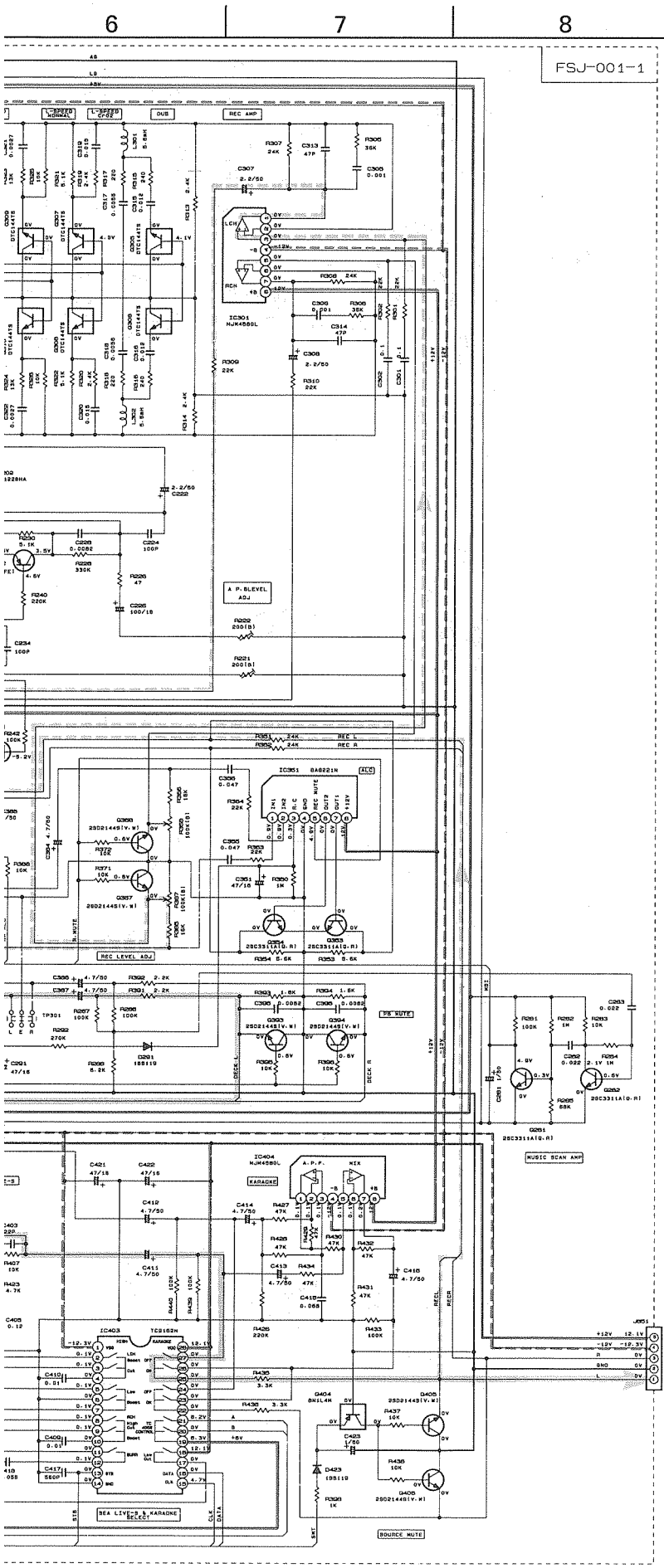




(No. 20457)

Cassette Deck Section

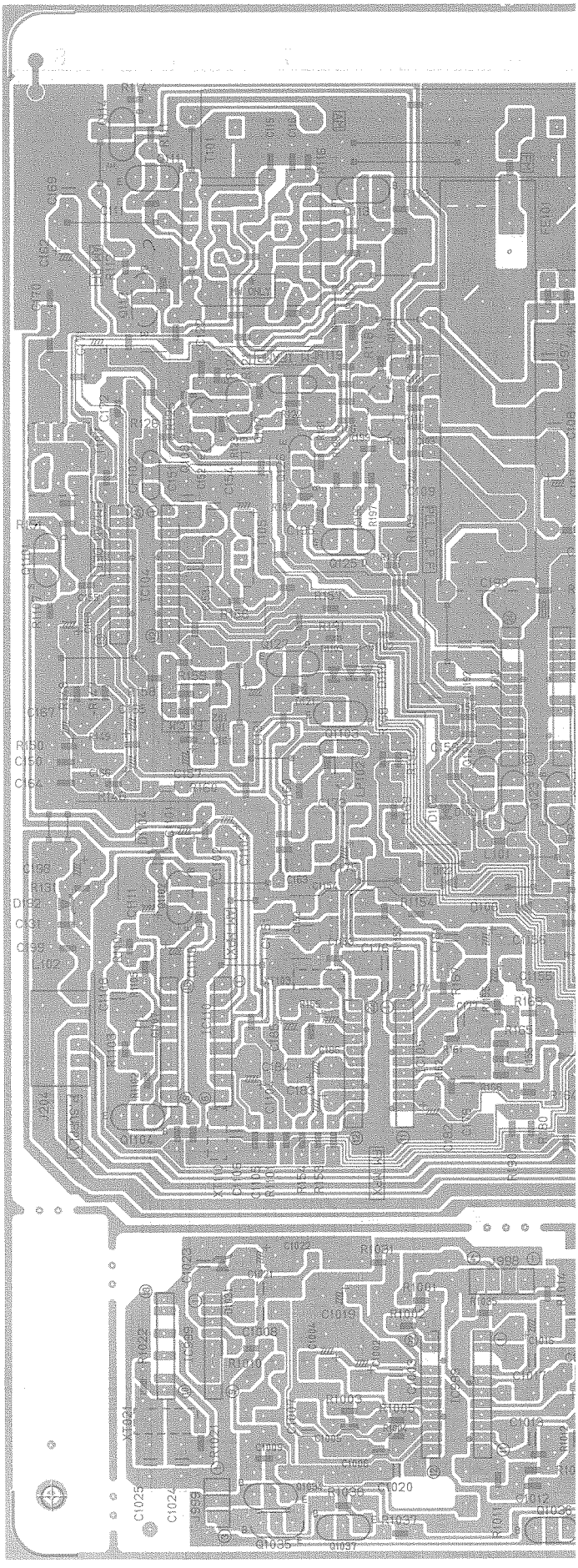


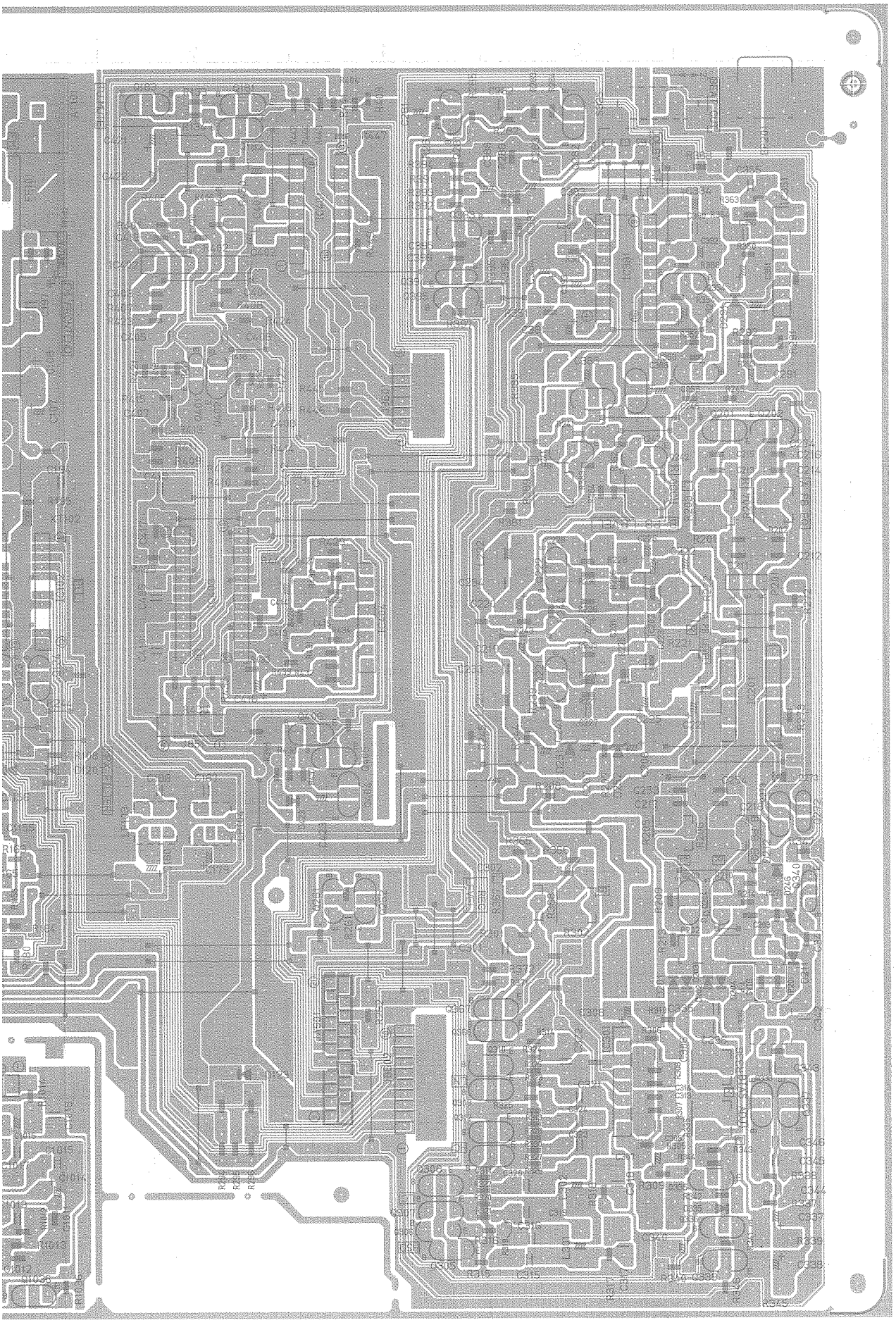


* MARK

SYMBOL	U. UC. UB. UT	EB. EF. EN. YX	A	0.01
C341	NONE	USED	NONE	USED
R347	NONE	USED	NONE	USED
Q340	NONE	USED	NONE	USED
Q345	NONE	USED	NONE	USED
Q335	NONE	USED	NONE	USED

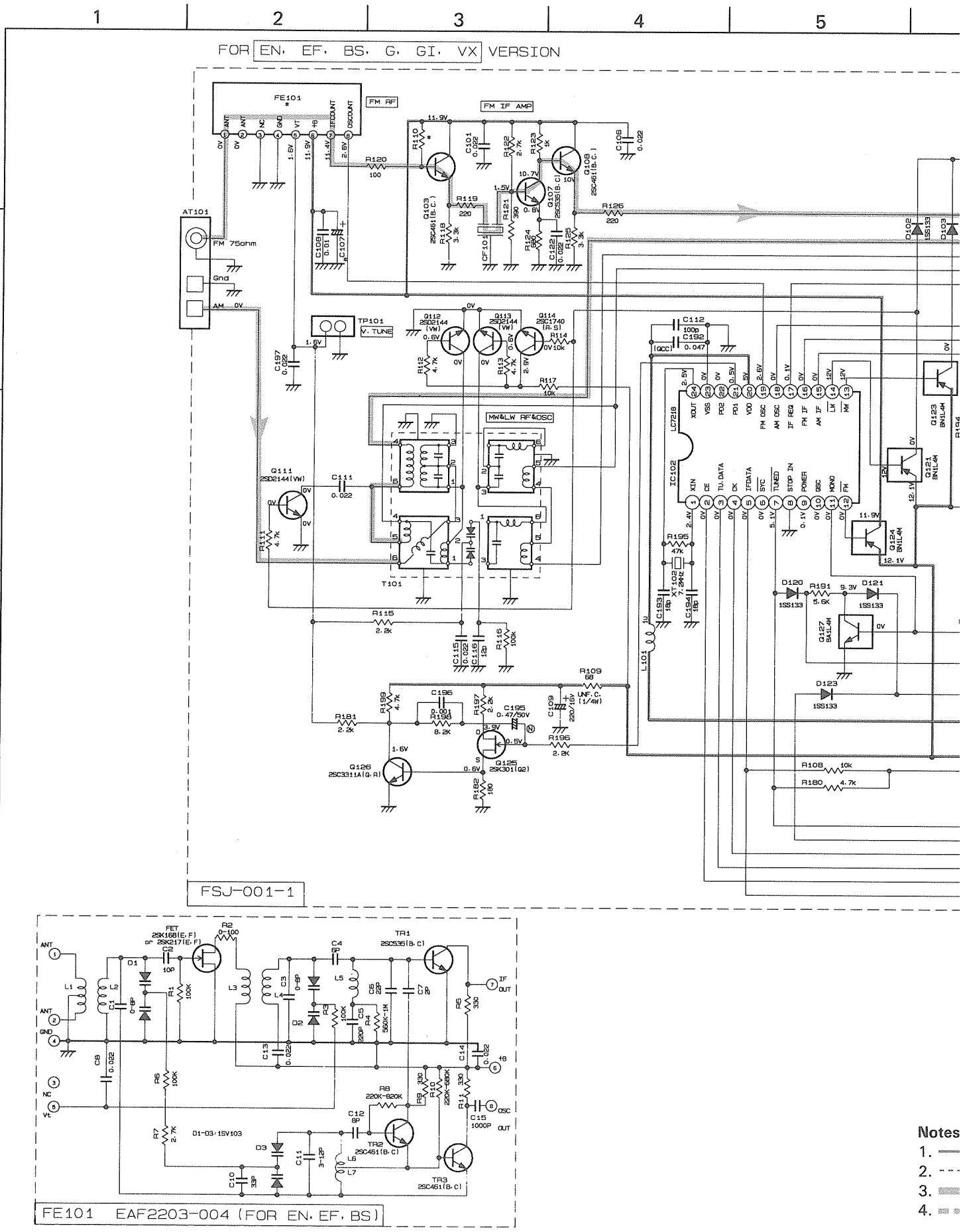
■ Deck & Tuner P.C. Board





(No. 20457)

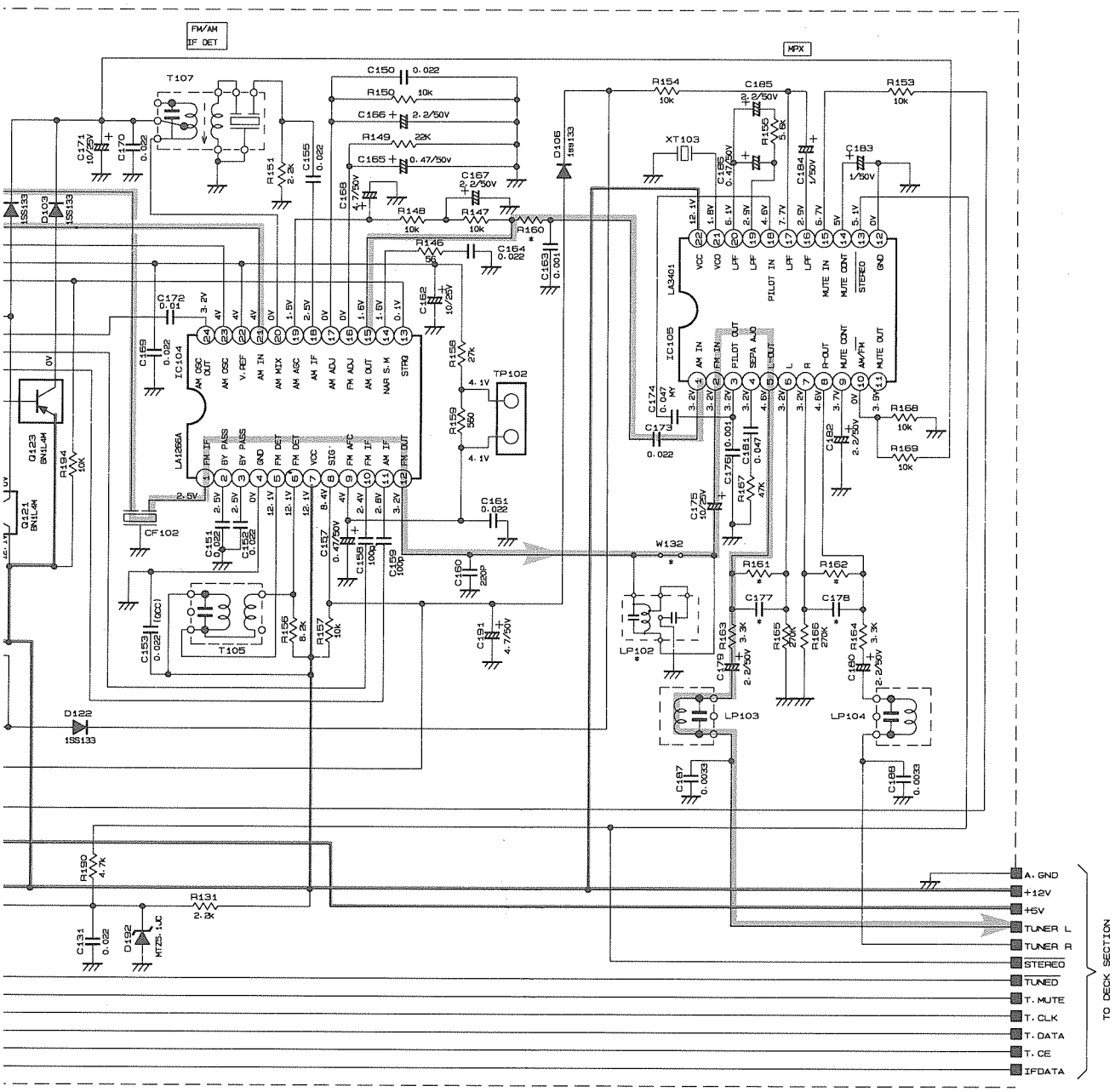
Tuner Section



Notes

1. ——
2. - - -
3. ▒▒
4. ▒▒

6 | 7 | 8 | 9 | 10



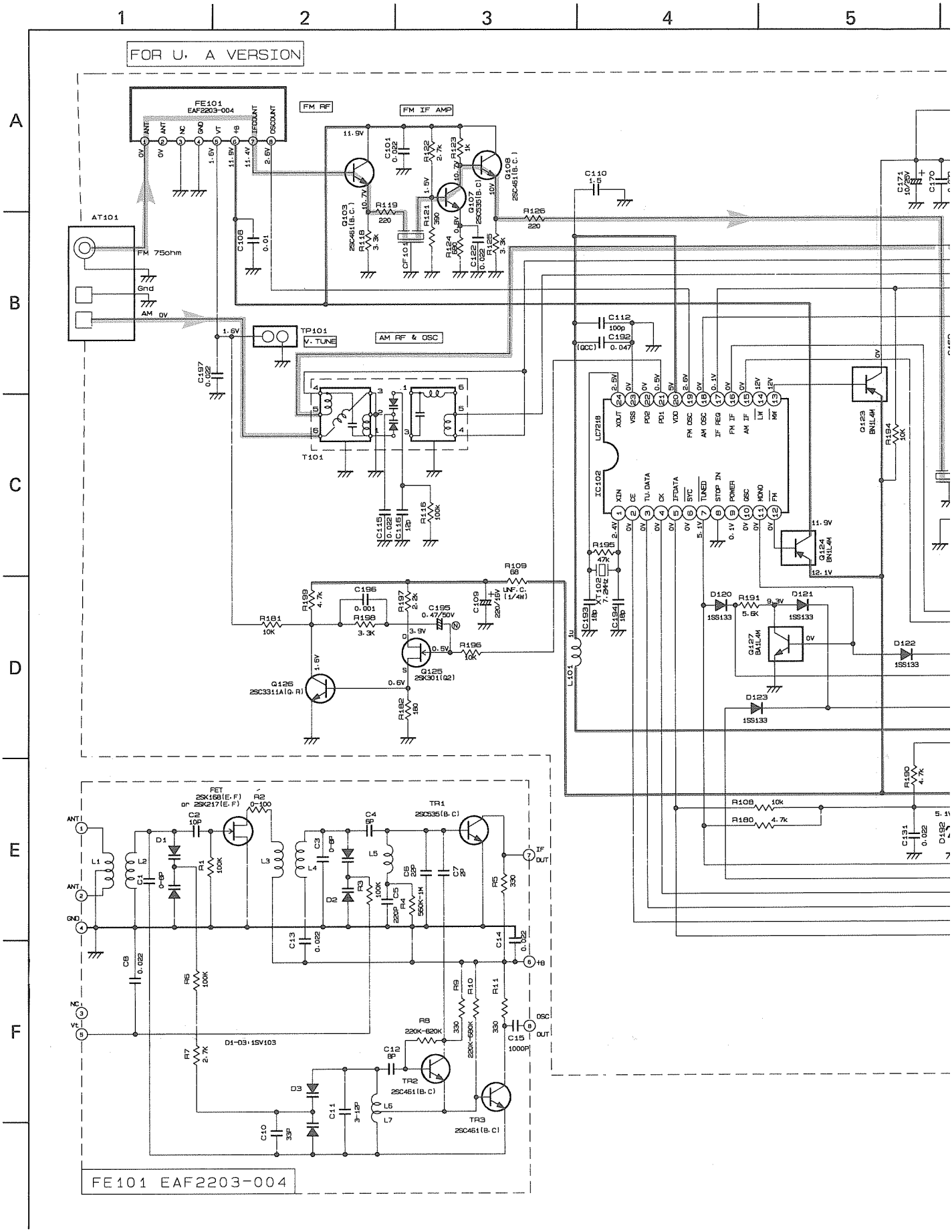
* Mark

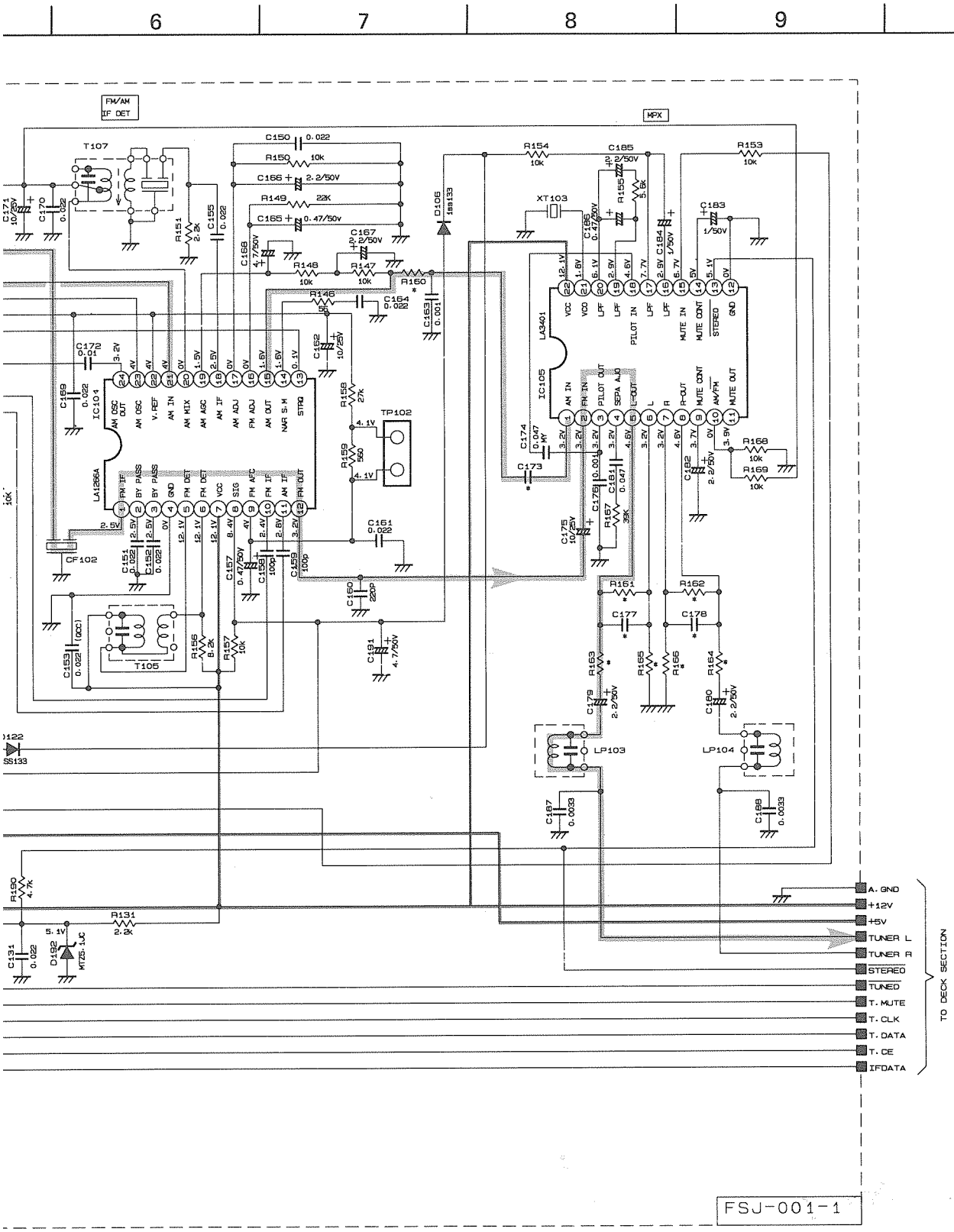
	EN. EF	G. GI	BS	VX
R110	NONE	NONE	NONE	47K
R160	18K	18K	8.2K	18K
R161, 162	120K	120K	82K	120K
C107	22/16	22/16	22/16	NONE
C177, 178	470P	470P	560P	470P
FE101	EAF2203-004	EAF2203-005	EAF2203-004	EAF2302-002
LP102	NONE	USED	NONE	NONE
W132	USED	NONE	USED	USED

Notes:

1. ——— indicates +B power supply.
2. - - - - - indicates −B power supply.
3. ▬▬ indicates main signal path.
4. ▬ ▬ ▬ indicates recording signal path.
5. When replacing the parts in the shaded area (▬▬) and those marked with ⚠ , be sure to use the designated parts to ensure safety. This is the standard circuit diagram.
6. The design and contents are subject to change without notice.

Tuner Section





* Mark

	A	U
R150	18K	5.6K
R161. 162	120K	82K
R163. 164	3.3K	4.7K
R165. 166	270K	180K
C173	0.022	0.039
C177. 178	470p	820p

PARTS LIST

Note : All printed circuit borads and its assemblies are not available as service parts.

General Exploded View and Parts List

⚠	Item	Part Number	Part Name	Q'ty	Description	Area
	1	EFP-CAS30BKE(S)	FRONT PANEL ASSY	1		
	1-1	E102753-003	FRONT PANEL	1		
	1-2	E207964-001	WINDOW SCREEN	1		
	1-3	E69777-003	REFLECTION PLATE	2		
	1-4	E406971-221	JVC MARK	1		
	2	E207966-002SA	CASSETTE LID ASSY	1	(A)	
	2-1	E207966-002	CASSETTE LID ASSY	1	(A)	
	2-2	E406971-221	JVC MARK	1	(A)	
	3	E207969-002	CASSETTE LID ASSY	1	(B)	
	4	E207972-002	CASSETTE HOLDER	1	(A)	
	5	E207973-002	CASSETTE HOLDER	1	(B)	
	6	E407796-001	HOLDER SPRING	1	(A)	
	7	E407797-001	HOLDER SPRING	1	(B)	
	8	E406713-001	CASS SPRING	4		
	9	SBST3008Z	TAPPING SCREW	2		
	10	E75896-002	SPACER	2		
	11	SBST3006M	TAPPING SCREW	4		
	12	E102358-332SS	CD TRAY	1		
	13	SBSF3008M	TAPPING SCREW	3		
	14	E207946-002	CD FITTING	1		
	15	E407233-003	VOLUME KNOB	1		
	16	E308673-002	VOLUME KNOB	1		
	17	E304434-005	DAMPER ASSY	2		
	18	E308680-001	EJECT BUTTON	1	(B)	
	19	E308679-001	EJECT BUTTON	1	(A)	
	20	E308684-001	CIRCUIT BOARD BRACKET	1		
	21	SDSF2608Z	SCREW	15		
	22	E407798-002	SPRING	1		
	23	E308682-001	EJECT LEVER	1	(B)	
	24	E308683-002	EJECT GUIDE	1		
	25	E308681-001	EJECT LEVER	1	(A)	
	26	E207961-002	PUSH BUTTON ASSY	1	(B)	
	27	E207951-002	PUSH BUTTON	1	TUNER	A
		E207951-003	PUSH BUTTON	1	TUNER	BS
		E207951-003	PUSH BUTTON	1	TUNER	EF
		E207951-003	PUSH BUTTON	1	TUNER	EN
		E207951-003	PUSH BUTTON	1	TUNER	G
		E207951-003	PUSH BUTTON	1	TUNER	GI
		E207951-002	PUSH BUTTON	1	TUNER	U
		E207951-002	PUSH BUTTON	1	TUNER	UC
		E207951-002	PUSH BUTTON	1	TUNER	US
		E207951-002	PUSH BUTTON	1	TUNER	UT
		E207951-003	PUSH BUTTON	1	TUNER	VX
	28	E207948-002	PUSH BUTTON ASSY	1		
	29	E407795-001	INDICATOR LENS	1	REC,PAUSE	
	30	E407794-001	INDICATOR LENS	1	DOLBY,REVERSE	
	31	E407431-001SM	REMOCON LENS	1		
	32	E207956-001	PUSH BUTTON ASSY	1	SORROUND	
	33	E207953-001	PUSH BUTTON ASSY	1	TIMER	
	34	E207958-002	PUSH BUTTON ASSY	1	(A)	
	35	EWR613K-13TTJ2	FLAT WIRE ASSY	1		
	36	EWR619K-20TTJ2	FLAT WIRE ASSY	1		
	37	E308685-001	STAY BRACKET	1		
	38	E407098-001	SPECIAL SCREW	1		
	39	E407900-001	PROTECT SHEET	1		

⚠	Item	Part Number	Part Name	Q'ty	Description	Area
	40	E48729-009	PLASTIC RIVET	1		
	41	E207974-002	HOLDER BRACKET	1		
	42	GBSF3006Z	TAPPING SCREW	2		
	43	E407802-002	SPRING	1	(B)	
	44	E407801-002	SPRING	1	(A)	
	45	E407800-001	EJECT BRACKET	1	(B)	
	46	E407799-001	EJECT BRACKET	1	(A)	
	47	----------	CASSETTE MECHANISM ASSY	1	See page 2-9	
	48	VKS3655-002	HOLDER	2		
	49	SDST2604Z	SCREW	2		
	50	EXO012012R30S	SPACER	2		
	51	SBSF3008C	TAPPING SCREW	4		
	52	SBST3006C	TAPPING SCREW	4		
	53	E102616-003SS	CHASSIS BASE	1		
	54	E75896-006	FELT SPACER	2	Rear Foot	
⚠	55	QHS3876-162	CORD STOPPER	1		Except BS
⚠	55	QHS3876-162BS	CORD STOPPER	1		BS
	56	SBSG3008N	TAPPING SCREW	12		
	57	E102755-001	CHASSIS BASE	1		
	58	E308167-001SS	STAY BRACKET	1		
	59	----------	CD MECHANISM ASSY	1	See page 2-7	
	60	EWS265-B408	SOCKET WIRE	1		
	61	SBST3006Z	TAPPING SCREW	3		
	62	EWR615M-14BB	FLAT WIRE	1		
	63	EWS266-B412	SOCKET WIRE	1	6Pin	
	64	E406293-001	SPECIAL SCREW	1		
	65	E306837-005	CLAMPER ASSY	1		
	65-1	E306836-003	YOKE PLATE	1		
	65-2	E74897-002	MAGNET	1		
	65-3	E26756-002	CLAMPER BASE	1		
	65-4	E306835-001	CD CLAMPER	1		
	66	E207564-001	METAL COVER	1		
	67	SDSG3006M	SCREW	6		
⚠	68	ETP1070-33EAJ	POWER TRANSFORMER	1		Except BS
⚠		ETP1070-33EAJBS	POWER TRANSFORMER	1		BS
⚠	69	QMF51E2-1R25	FUSE	2	F501,502 (T1.25A,250V)	Escept BS
⚠		QMF51E2-1R2J1BS	FUSE	2	F501,502 (T1.25A,250V)	BS
⚠	70	QMF51E2-1R0J1	FUSE	1	F002 (T1.0A,250V)	A
⚠		QMF51E2-1R0J1BS	FUSE	1	F002 (T1.0A,250V)	BS
⚠		QMF51E2-1R0J1	FUSE	1	F002 (T1.0A,250V)	EF
⚠		QMF51E2-1R0J1	FUSE	1	F002 (T1.0A,250V)	EN
⚠		QMF51E2-1R0J1	FUSE	1	F002 (T1.0A,250V)	G
⚠		QMF51E2-1R0J1	FUSE	1	F002 (T1.0A,250V)	GI
⚠		QMF51E2-2R0J1	FUSE	1	F001 (T2.0A,250V)	U
⚠		QMF51E2-2R0J1	FUSE	1	F001 (T2.0A,250V)	UC
⚠		QMF51E2-2R0J1	FUSE	1	F001 (T2.0A,250V)	US
⚠		QMF51E2-2R0J1	FUSE	1	F001 (T2.0A,250V)	UT
	71	E65389-004	SPECIAL SCREW	4		
	72	SBSG3014Z	TAPPING SCREW	4		
	73	E406969-221	LEAF SPRING	1		
	74	E307908-003SS	HEAT SINK	1		
	75	FSFC2001-001	REAR PANEL	1		A
		FSFC2001-002	REAR PANEL	1		BS
		FSFC2001-003	REAR PANEL	1		EF
		FSFC2001-003	REAR PANEL	1		EN

⚠	Item	Part Number	Part Name	Q'ty	Description	Area
		FSFC2001-003	REAR PANEL	1		G
		FSFC2001-003	REAR PANEL	1		GI
		FSFC2001-004	REAR PANEL	1		U
		FSFC2001-005	REAR PANEL	1		UC
		FSFC2001-004	REAR PANEL	1		US
		FSFC2001-004	REAR PANEL	1		UT
		FSFC2001-006	REAR PANEL	1		VX
	76	E73273-003	SPECIAL SCREW	11		
		E73273-003	SPECIAL SCREW	2		U
		E73273-003	SPECIAL SCREW	2		UC
		E73273-003	SPECIAL SCREW	2		US
		E73273-003	SPECIAL SCREW	2		UT
	77	E48729-008	PLASTIC RIVET	1		
⚠	78	QMP25F0-244	POWER CORD	1		A
⚠		QMP5530-0085BS	POWER CORD	1		BS
⚠		QMP3900-200E	POWER CORD	1		EF
⚠		QMP3900-200E	POWER CORD	1		EN
⚠		QMP3900-200E	POWER CORD	1		G
⚠		QMP3900-200E	POWER CORD	1		GI
⚠		QMP7520-200	POWER CORD	1		U
⚠		QMP7520-200	POWER CORD	1		UC
⚠		QMP3900-200E	POWER CORD	1		US
⚠		QMP7520-200	POWER CORD	1		UT
⚠		QMP3900-200E	POWER CORD	1		VX
	79	EWR621K-10TTJ2	FLAT WIRE ASSY	1		
	80	E207356-223	REAR COVER	1		
	81	SPST2605Z	TAPPING SCREW	2		
	82	SBSG3006N	TAPPING SCREW	1		U
		SBSG3006N	TAPPING SCREW	1		UC
		SBSG3006N	TAPPING SCREW	1		US
		SBSG3006N	TAPPING SCREW	1		UT
⚠	83	QMF51E2-1R0J1	FUSE	1	F002 (T1.0A,250V)	U
⚠		QMF51E2-1R0J1	FUSE	1	F002 (T1.0A,250V)	UC
⚠		QMF51E2-1R0J1	FUSE	1	F002 (T1.0A,250V)	US
⚠		QMF51E2-1R0J1	FUSE	1	F002 (T1.0A,250V)	UT
⚠		QMF51E2-1R0J1	FUSE	1	F002 (T1.0A,250V)	VX
	84	SDSF2610M	SCREW	4		
	-	E61029-005	NUMBER LABEL	1		
	-	E406507-001	CAUTION LABEL	1		
	-	E70891-001	CLASS 1 LABEL	1		
	-	QZL1031-101	LABEL	1		EF
	-	E70027-001	LABEL	1		EN
	-	E75139-004	LABEL	1	Made in Singapore	

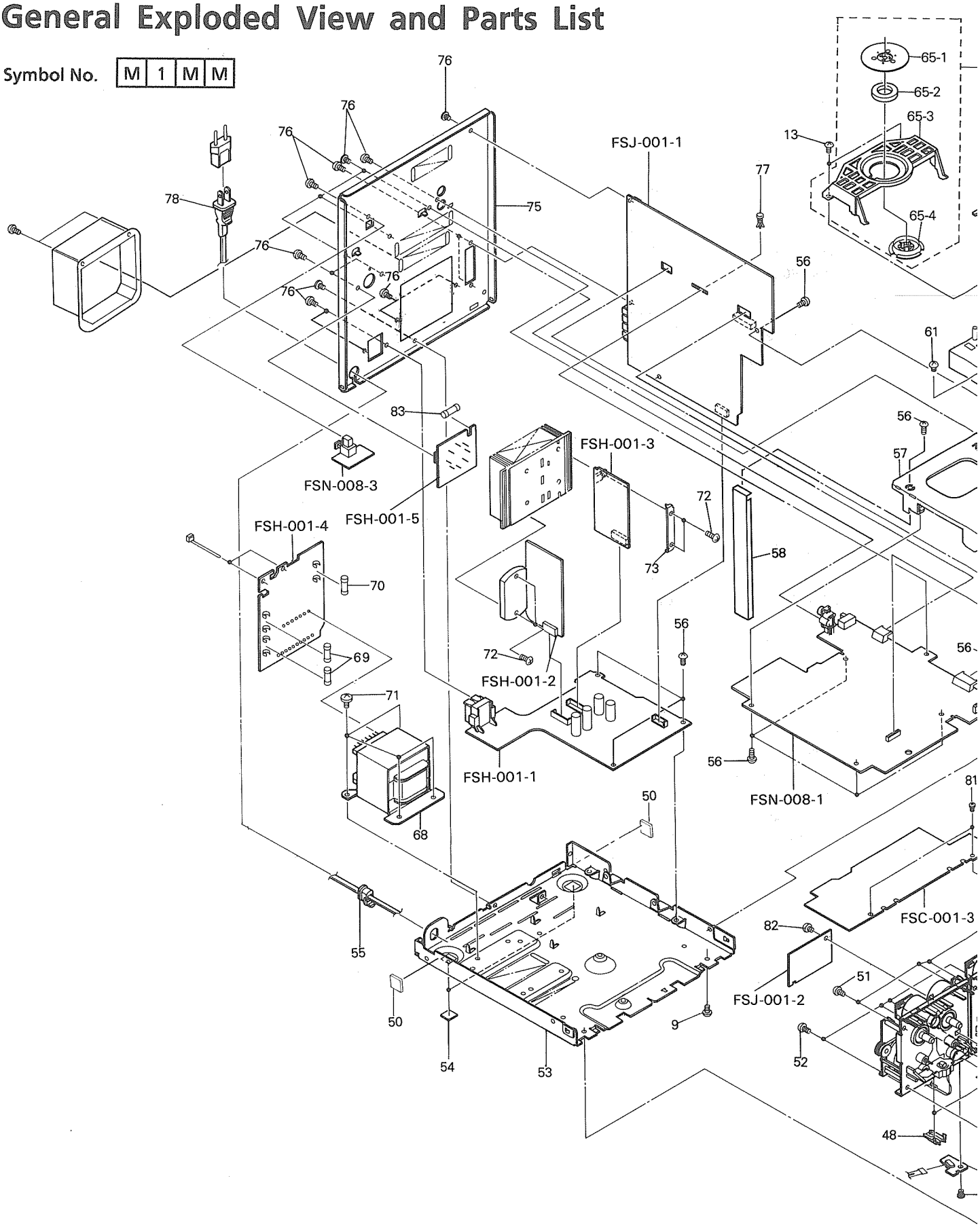
⚠ : Safety Parts

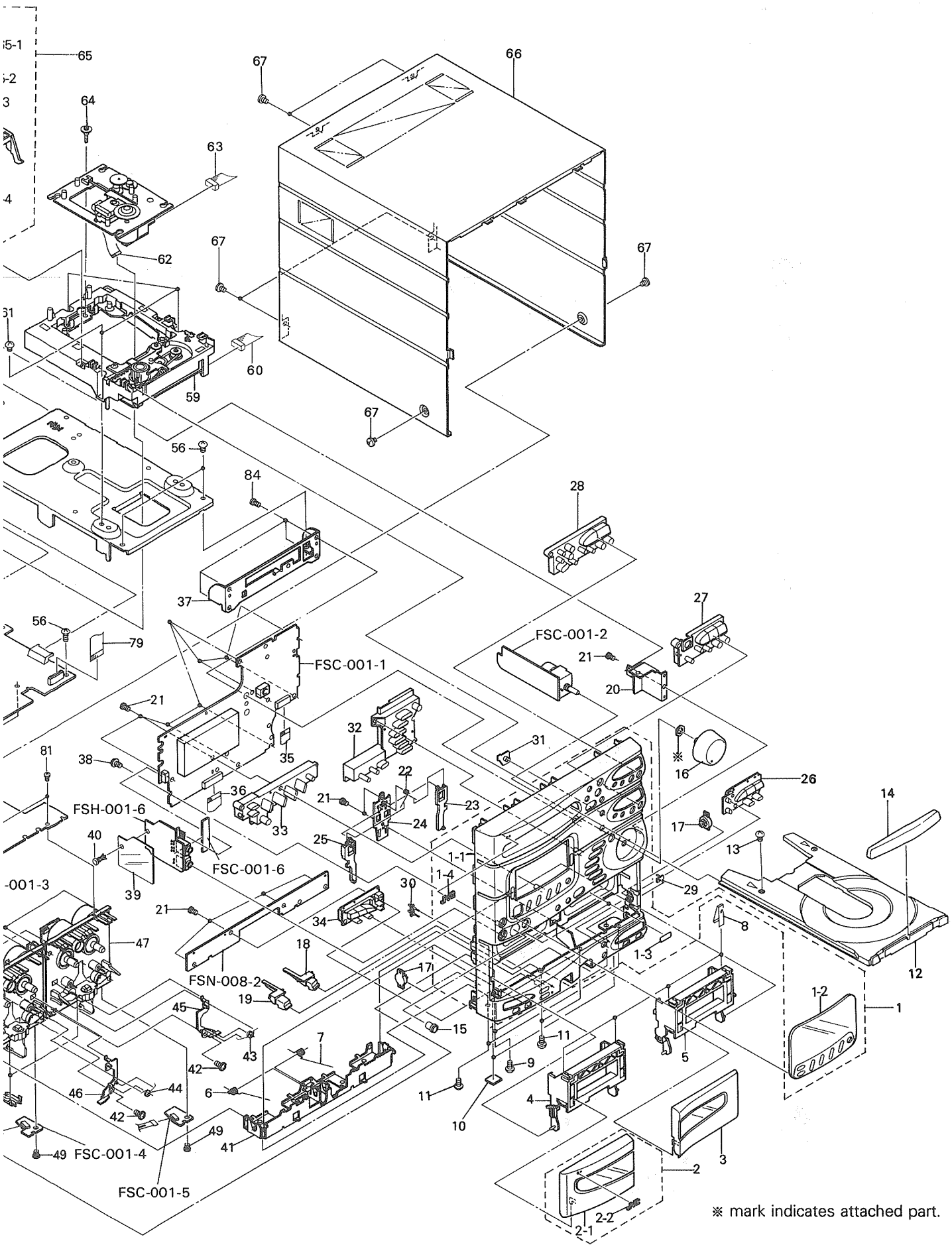
The Marks for Designated Areas

A	Australia	BS	the U.K.	EF	Scandinavia	EN	Continental Europe
G	Germany	GI	Italy	U	Universal Type	UC	China
US	Singapore	UT	Taiwan	VX	East Europe	No mark indicates all area.	

General Exploded View and Parts List

Symbol No. M 1 M M

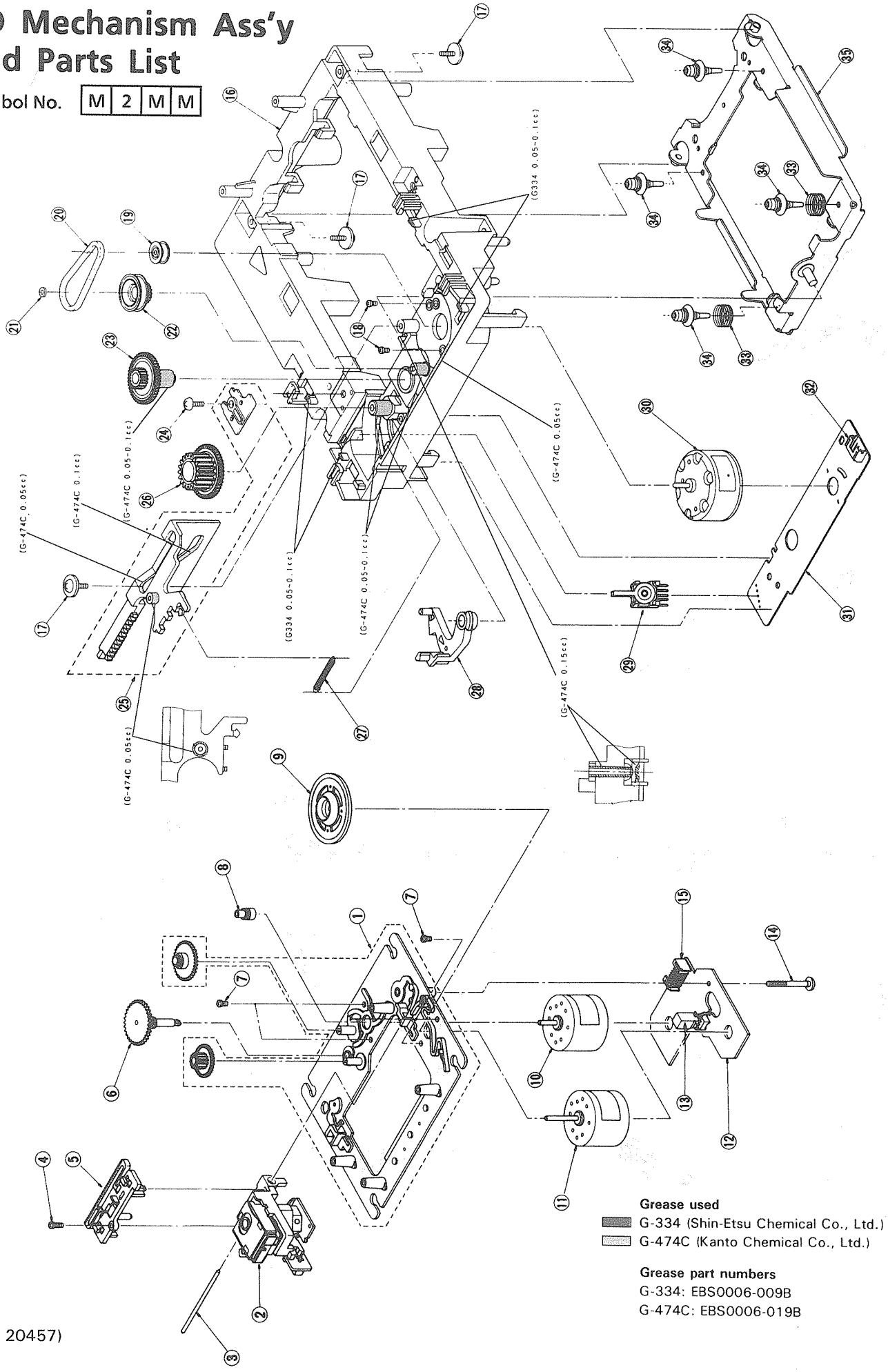




※ mark indicates attached part.

CD Mechanism Ass'y and Parts List

Symbol No. M 2 M M



Grease used

G-334 (Shin-Etsu Chemical Co., Ltd.)

G-474C (Kanto Chemical Co., Ltd.)

Grease part numbers

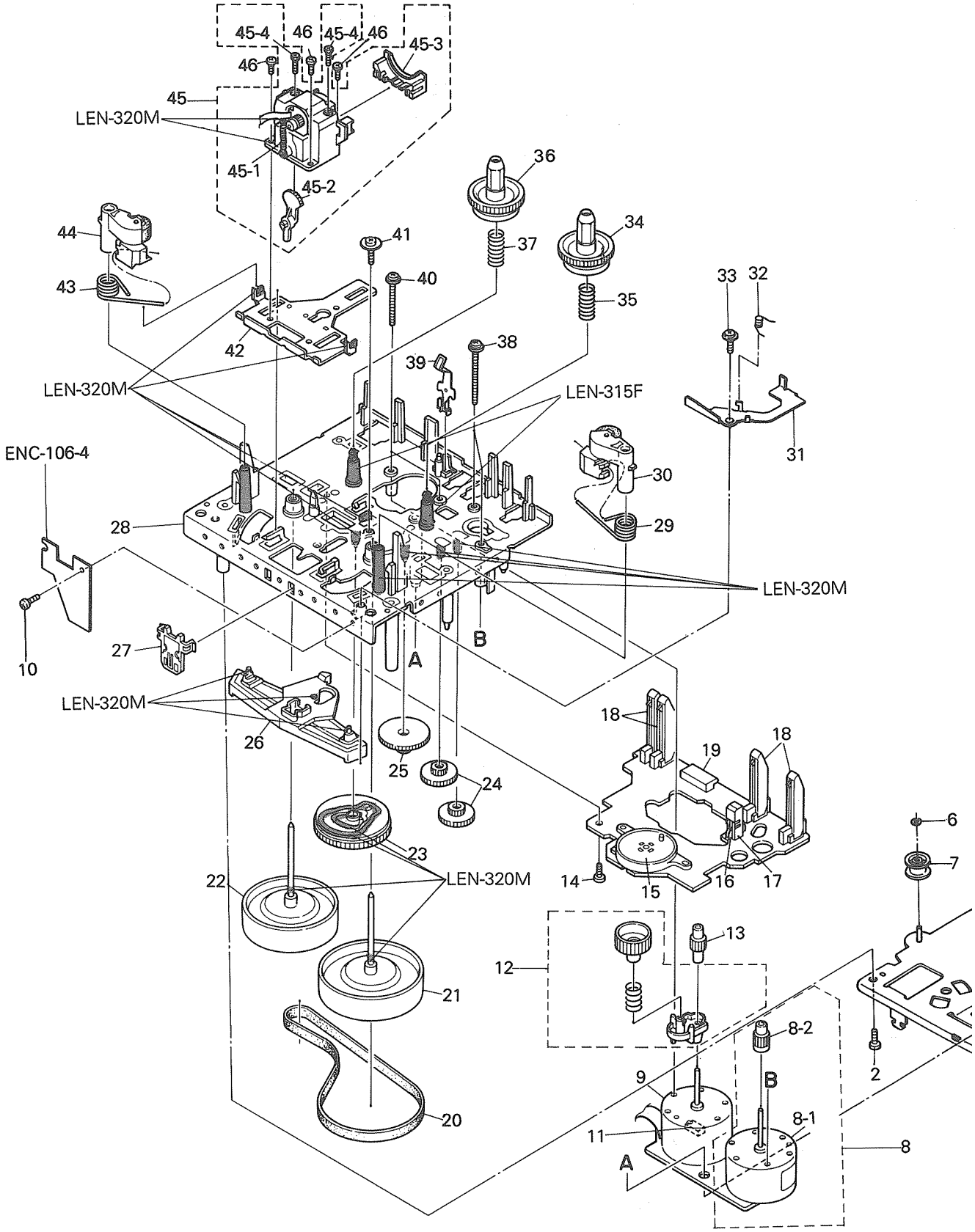
G-334: EBS0006-009B

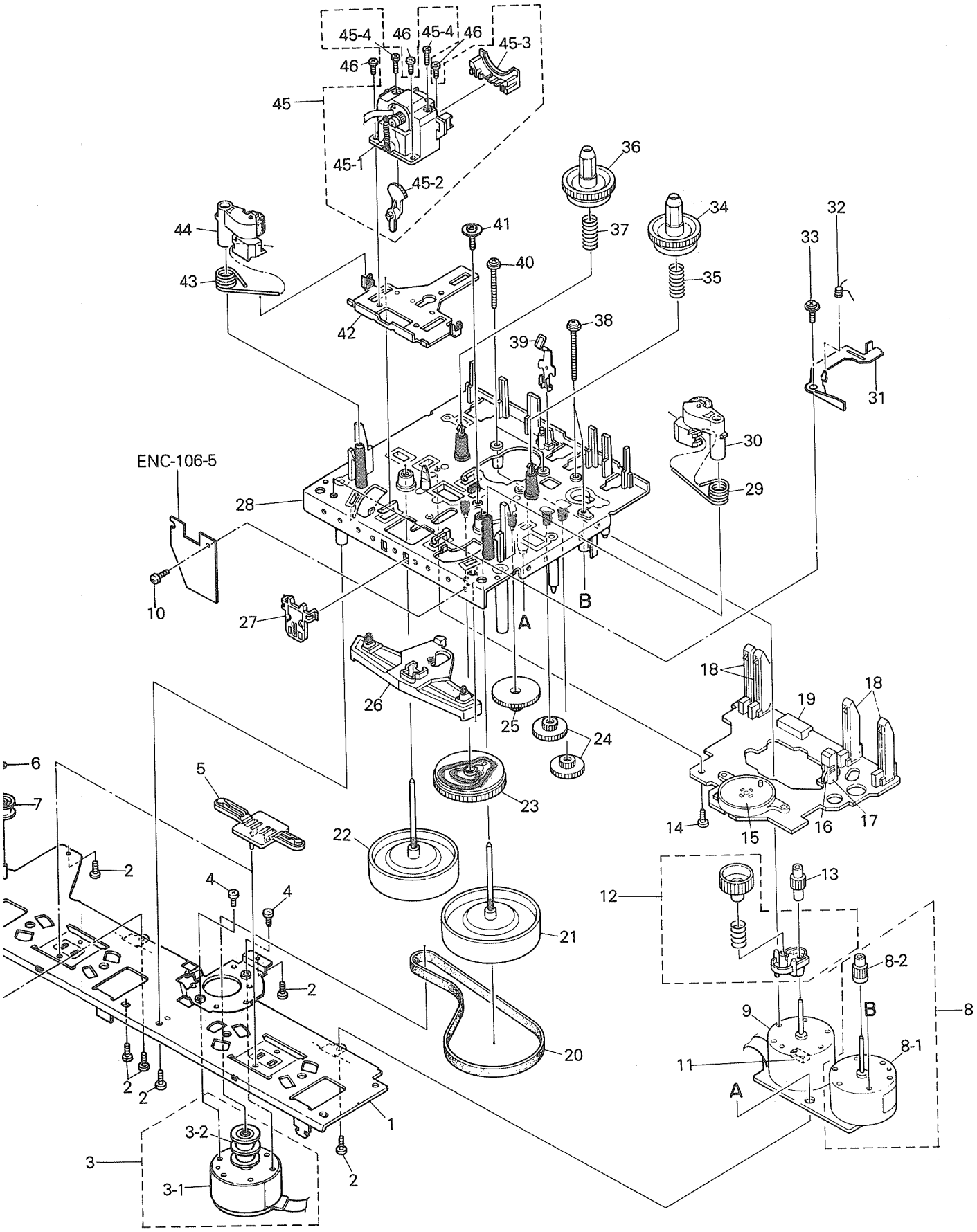
G-474C: EBS0006-019B

Parts List (CD Mechanism Ass'y)

Item	Part Number	Part Name	Q'ty	Description	Area
1	EPB-002A	MECHANISM BASE ASSY	1		
2	OPTIMA-6S	PICK UP ASS'Y	1		
3	E406777-001	SHAFT	1		
4	SDSF2006Z	SCREW	1		
5	E307746-001	CD RACK	1		
6	EPB-003A	MECHANISM BASE ASSY	1		
7	SDSP2003N	SCREW	4		
8	E406750-001	PINION GEAR	1		
9	EPB-001C	TURNTABLE	1		
10	E406784-001	DC MOTOR	1		
11	E406783-001	DC MOTOR	1		
12	EMW10190-001(S)	CIRCUIT BOARD	1		
13	ESB1100-005	LEAF SWITCH	1		
14	E75832-001	SPECIAL SCREW	1		
15	EMV5109-006B	PLUG ASSY	1	6PIN	
16	E102357-221	LOADING BASE	1		
17	E65923-003	SCREW	3		
18	SPSK2640Z	SCREW	2		
19	E75984-001	MOTOR PULLEY	1		
20	E75950-002	BELT	1		
21	E72024-001	SPEED NUT	1		
22	E75985-001	GEAR	1		
23	E75986-002	GEAR	1		
24	SBSF3008Z	SCREW	1		
25	E307252-221	CAM - PLATE	1		
26	E75987-001	REEL GEAR	1		
27	E75989-001	SPRING	1		
28	E307162-221	LEVER	1		
29	ESS1200-002	SLIDE SWITCH	1		
30	RF-500TB-12560	MOTOR	1		
31	EMW10255-002(S)	CIRCUIT BOARD	1		
32	EMV5109-005B	PLUG ASSY	1	5PIN	
33	E406871-001	SPRING	2		
34	E406294-002	INSULATOR	4		
35	E307179-221	ELEVATOR BASE ASSY	1		

Cassette Mechanism Ass'y and Parts List Symbol No. M 3 M M

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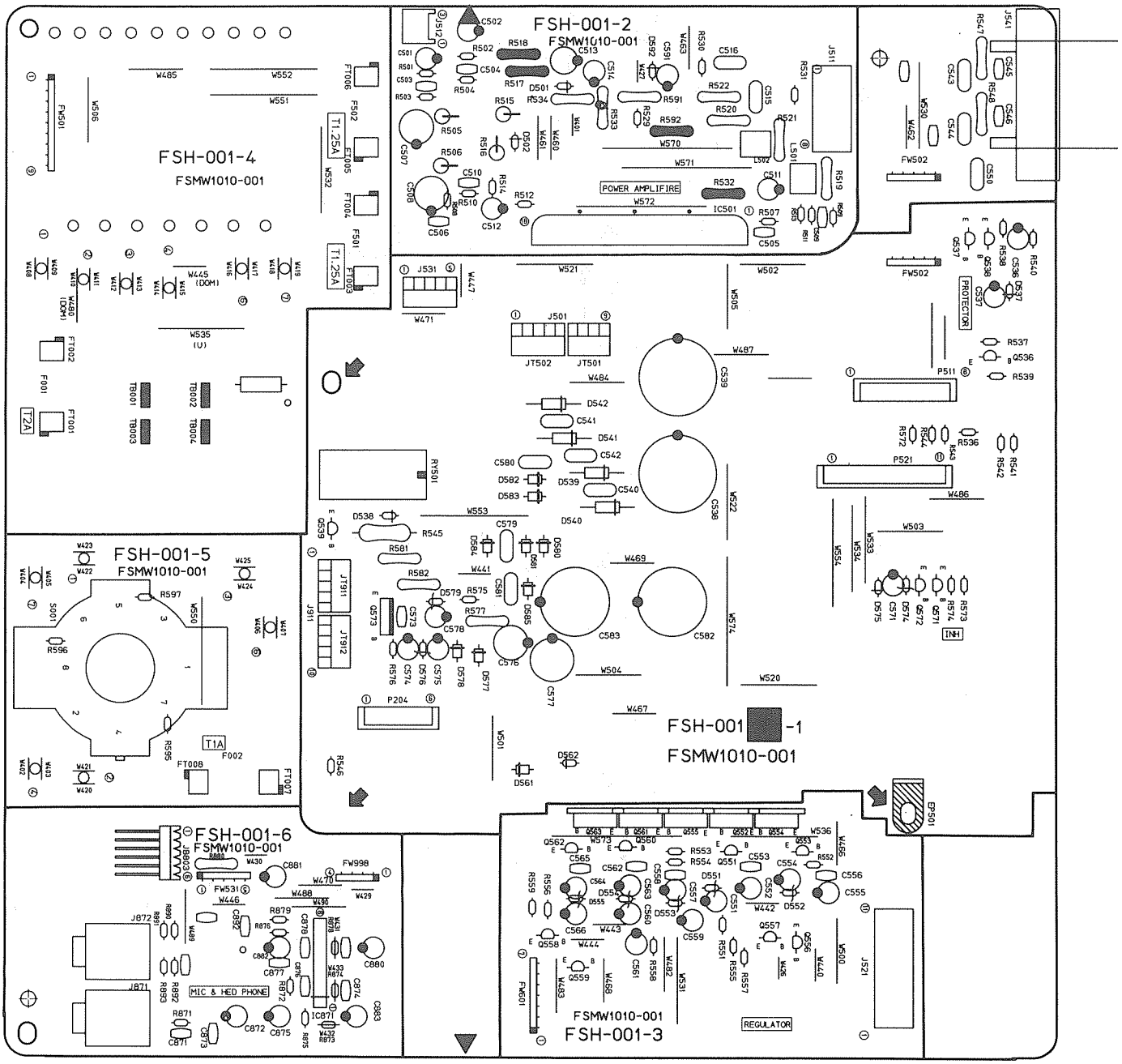
Parts List (Cassette Mechanism Ass'y)

Item	Part Number	Part Name	Q'ty	Description	Areas
1	VKM3775-00A	FM BRACKET	1		
2	SDSF2608Z	SCREW	7		
3	MSI5U2LWA-SA1	DC MOTOR ASSY	1		
3-1	MSI-5U2LWA	MOTOR	1		
3-2	VKR4632-004	MOTOR PULLEY	1		
4	SPSP2603Z	SCREW	2		
5	VKS5327-004	PLATE	2		
6	WDL163525-4	WASHER	1		
7	VKR4631-002	IDLER PULLEY	1		
8	MSN5D257A-SA1	DC MOTOR ASSY	2		
8-1	MSN-5D257A	DC MOTOR	2		
8-2	VKS5433-001	MOTOR GEAR	2		
9	MMN-6F4RA38	DC MOTOR	2		
10	SDST2604Z	SCREW	2		
11	VMC0234-R08	CONNECTOR	2		
12	VKS5430-00B	FR ARM	2		
13	VKS5432-001	REEL MOTOR GEAR	2		
14	SDST2612Z	SCREW	2		
15	VKS3616-00A	CAM SWITCH	2		
16	DN6851-HI	IC	2		
17	VKS3630-001	IC HOLDER	2		
18	VSH1170-001	LEAF SWITCH	7		
19	VMC0234-R11	CONNECTOR	1	A MECHA	
	VMC0234-R14	CONNECTOR	1	B MECHA	
20	VKB3001-057	DRIVE BELT	1	A MECHA	
	VKB3001-058	DRIVE BELT	1	B MECHA	
21	VKF3184-00H	FLY WHEEL	2	RIGHT	
22	VKF3186-00H	FLY WHEEL	2	LEFT	
23	VKS2224-001	CONTROL CAM	2		
24	VKS5454-001	ACTUATOR GEAR	4		
25	VKS5455-001	ACTUATOR GEAR	2		
26	VKS3627-001	PINCHROLLER LEVER	2		
27	VKS3655-002	F.P.C. HOLDER	2		
28	VKS1134-00B	CHASSIS BASE	2		
29	VKW5045-003	PINCHROLLER SPRING	2	PINCHROLLER (RIGHT)	
30	VKP4227-00B	PINCHROLLER	2	RIGHT	
31	E407799-001	EJECT SAFETY	1	A MECHA	
	E407800-001	EJECT SAFETY	1	B MECHA	
32	E407801-002	SPRING	1	A MECHA	
	E407802-002	SPRING	1	B MECHA	
33	SBSF3008Z	SCREW	2		
34	VKS5428-00B	REEL	2		
35	VKW5043-001	TENSION SPRING	2		
36	VKS3617-002	REEL	2		
37	VKW5043-001	TENSION SPRING	2		
38	VKZ4705-002	SCREW	4		
39	VKY4670-001	CASSETTE SPRING	2		
40	VKZ4705-001	SCREW	2		
41	VKZ4708-001	SCREW	2		
42	VKM3632-001	HEAD BASE	2		
43	VKW5046-003	PINCHROLLER SPRING	2	PINCHROLLER (LEFT)	
44	VKP4229-00B	PINCHROLLER	2	LEFT	
45	VKS3626-00C	HEAD MOUNT	1	A MECHA	
	VKS3629-00C	HEAD MOUNT	1	B MECHA	
45-1	VKW5063-003	HEAD SPRING	2		
45-2	VKS3614-001	TURN GEAR	2		
45-3	VKS3654-001	HEAD MOUNT COVER	2		
45-4	VKZ4629-003	SCREW	4		
46	SDST2004Z	SCREW	6		

Printed Circuit Board Ass'y and Parts List

■FSH-001 □ Power Supply, Power Amplifier, Echo & Mic Mix PC Board Ass'y

Note: FSH-001 □ varies according to the areas employed.See note (1) when placing an order.



Note (1)

PC Board Ass'y	Version	Designated Areas
FSH-001 [A]	U UC US UT	Universal Type China Singapore Taiwan
FSH-001 [B]	A	Australia
FSH-001 [C]	EN EF	Scandinavia Continental Europe
FSH-001 [D]	G	Germany
FSH-001 [E]	BS	the U.K.
FSH-001 [F]	GI	Italy
FSH-001 [G]	VX	East Europe

TRANSISTORS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q536	2SC3311A(Q,R)	SI.TRANSISTMATSUSHITA	
	Q537	2SC3311A(Q,R)	SI.TRANSISTMATSUSHITA	
	Q538	2SA1175(HFE)	SI.TRANSIST	
	Q539	2SC3311A(Q,R)	SI.TRANSISTMATSUSHITA	
	Q551	2SC3311A(Q,R)	SI.TRANSISTMATSUSHITA	
	Q552	2SD2061(F,G)	SI.TRANSISTROHM	
	Q553	2SC3311A(Q,R)	SI.TRANSISTMATSUSHITA	
	Q554	2SD2061(F,G)	SI.TRANSISTROHM	
	Q555	2SB1187(F,G)	SI.TRANSISTROHM	
	Q556	BA1L4M	D.TR.I.M	
	Q557	BN1L4M	DIGITAL TRA	
	Q558	BN1L4M	DIGITAL TRA	
	Q559	BA1L4M	D.TR.I.M	
	Q560	2SC3311A(Q,R)	SI.TRANSISTMATSUSHITA	
	Q561	2SD2061(F,G)	SI.TRANSISTROHM	
	Q562	2SA970(GR,BL)	SI.TRANSIST	
	Q563	2SB1187(F,G)	SI.TRANSISTROHM	
	Q571	BA1A4P	DIGITAL TRANEC	
	Q572	BA1A4P	DIGITAL TRANEC	
	Q573	2SB1357(E,F)	SI.TRANSISTROHM	

⚠ :SAFETY PARTS

I. C. S.

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC501	STK4141MK5	I.C(HYBRID)SANYO	
	IC871	NJM4580L-S	I.C(MONO-AN0050	

⚠ :SAFETY PARTS

DIODES

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	D501	1SS119	SI.DIODE	
	D502	1SS119	SI.DIODE	
	D537	1SS119	SI.DIODE	
	D538	1SS119	SI.DIODE	
	D539	10E2-FD	DIODE NIHONINTER	
	D540	10E2-FD	DIODE NIHONINTER	
	D541	10E2-FD	DIODE NIHONINTER	
	D542	10E2-FD	DIODE NIHONINTER	
	D551	MTZ11JC	ZENER DIODEROHM	
	D552	MTZ6.8JC	ZENER DIODEROHM	
	D553	MTZ5.6JB	ZENER DIODEROHM	
	D554	MTZ13JC	ZENER DIODEROHM	
	D555	MTZ13JC	ZENER DIODEROHM	
	D561	1SR139-200	SI.DIODE ROHM	
	D562	1SS119	SI.DIODE	
	D574	MTZ5.1JC	ZENER DIODEROHM	
	D575	1SS119	SI.DIODE	
	D576	MTZ30JC	ZENER DIODEROHM	
	D577	1SR139-200	SI.DIODE ROHM	
	D578	1SR139-200	SI.DIODE ROHM	
	D579	MTZ5.1JC	ZENER DIODEROHM	
	D580	1SR139-200	SI.DIODE ROHM	
	D581	1SR139-200	SI.DIODE ROHM	
	D582	1SR139-200	SI.DIODE ROHM	
	D583	1SR139-200	SI.DIODE ROHM	
	D584	1SR139-200	SI.DIODE ROHM	
	D585	1SR139-200	SI.DIODE ROHM	
	D592	1SS119	SI.DIODE	

⚠ :SAFETY PARTS

CAPACITORS

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	C501	QETB1EM-106	10MF	25V	AL E.CAPAC	IT
	C502	QETB1EM-106	10MF	25V	AL E.CAPAC	IT
	C503	QCBB1HK-221Y	220PF	50V	CER.CAPACI	TO
	C504	QCBB1HK-221Y	220PF	50V	CER.CAPACI	TO
	C505	QCBB1HK-101Y	100PF	50V	CER.CAPACI	TO
	C506	QCBB1HK-101Y	100PF	50V	CER.CAPACI	TO
	C507	QETB1EM-107	100MF	25V	AL E.CAPAC	IT
	C508	QETB1EM-107	100MF	25V	AL E.CAPAC	IT
	C509	QCSB1HK-4R7	4.7PF	50V	CERAMIC	
	C510	QCSB1HK-4R7	4.7PF	50V	CERAMIC	
	C511	QETB1HM-226	22MF	50V	ELECTRO	
	C512	QETB1HM-226	22MF	50V	ELECTRO	
	C513	QETB1HM-476	47MF	50V	E.CAPACITO	R
	C514	QETB1HM-106	10MF	50V	E.CAPACITO	R
	C515	QFLB1HJ-104	0.1MF	50V	MYLAR CAPA	CI
	C516	QFLB1HJ-104	0.1MF	50V	MYLAR CAPA	CI
	C536	QETB1CM-476	47MF	16V	AL E.CAPAC	IT
	C537	QETB1CM-226	22MF	16V	E.CAPACITO	R
	C538	EET4202-228E	2200MF		E.CAPACITO	R
	C539	EET4202-228E	2200MF		E.CAPACITO	R
	C540	QFLB2AJ-103	0.01MF	100V	MYLAR CAPA	CI
	C541	QFLB2AJ-103	0.01MF	100V	MYLAR CAPA	CI
	C542	QFLB2AJ-103	0.01MF	100V	MYLAR CAPA	CI
	C550	QCVB1CM-103Y	0.01MF	16V	CER.CAPACI	TO
	C551	QETB1CM-226	22MF	16V	E.CAPACITO	R
	C552	QETB1CM-476	47MF	16V	AL E.CAPAC	IT
	C553	QCVB1CM-103Y	0.01MF	16V	CER.CAPACI	TO
	C554	QETB1AM-476	47MF	10V	E.CAPACITO	R
	C555	QETB1AM-476	47MF	10V	E.CAPACITO	R
	C556	QCVB1CM-103Y	0.01MF	16V	CER.CAPACI	TO
	C557	QETB1CM-226	22MF	16V	E.CAPACITO	R
	C558	QCVB1CM-103Y	0.01MF	16V	CER.CAPACI	TO
	C559	QETB1CM-476	47MF	16V	AL E.CAPAC	IT
	C560	QETB1EM-106	10MF	25V	AL E.CAPAC	IT
	C561	QETB1EM-106	10MF	25V	AL E.CAPAC	IT
	C562	QFN81HJ-103	0.01MF	50V	METAL.MYLA	R
	C563	QETB1EM-106	10MF	25V	AL E.CAPAC	IT
	C564	QETB1CM-226	22MF	16V	E.CAPACITO	R
	C565	QFN81HJ-103	0.01MF	50V	METAL.MYLA	R
	C566	QETB1CM-226	22MF	16V	E.CAPACITO	R
	C571	QETB1HM-225	2.2MF	50V	E.CAPACITO	R
	C573	QCGB1HK-102	1000PF	50V	CER.CAPACI	TO
	C574	QETB1HM-226	22MF	50V	ELECTRO	
	C575	QETB1HM-226	22MF	50V	ELECTRO	
	C576	QETB1JM-476	47MF	63V	AL E.CAPAC	IT

⚠ :SAFETY PARTS

CAPACITORS

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	C577	QETB1JM-107	100MF	63V	AL E.CAPAC	IT
	C578	QETB1HM-475	4.7MF	50V	ELECTRO	
	C579	QFLB2AJ-103	0.01MF	100V	MYLAR CAPA	CI
	C580	QFLB2AJ-103	0.01MF	100V	MYLAR CAPA	CI
	C581	QFLB2AJ-103	0.01MF	100V	MYLAR CAPA	CI
	C582	QETM1VM-228J7	2200MF	35V	E.CAPACITO	R
	C583	QETM1VM-228J7	2200MF	35V	E.CAPACITO	R
	C591	QETB1HM-106	10MF	50V	E.CAPACITO	R
	C871	QCGB1HK-102	1000PF	50V	CER.CAPACI	TO
	C872	QETB1HM-105	1MF	50V	AL E.CAPAC	IT
	C873	QCGB1HK-102	1000PF	50V	CER.CAPACI	TO
	C874	QCBB1HK-101Y	100PF	50V	CER.CAPACI	TO A
	C874	QCBB1HK-101Y	100PF	50V	CER.CAPACI	TO BS
	C874	QCBB1HK-101Y	100PF	50V	CER.CAPACI	TO EF
	C874	QCBB1HK-101Y	100PF	50V	CER.CAPACI	TO EN
	C874	QCBB1HK-101Y	100PF	50V	CER.CAPACI	TO G
	C874	QCBB1HK-101Y	100PF	50V	CER.CAPACI	TO GI
	C874	QCBB1HK-101Y	100PF	50V	CER.CAPACI	TO VX
	C875	QETB1EM-106	10MF	25V	AL E.CAPAC	IT A
	C875	QETB1EM-106	10MF	25V	AL E.CAPAC	IT BS
	C875	QETB1EM-106	10MF	25V	AL E.CAPAC	IT EF
	C875	QETB1EM-106	10MF	25V	AL E.CAPAC	IT EN
	C875	QETB1EM-106	10MF	25V	AL E.CAPAC	IT G
	C875	QETB1EM-106	10MF	25V	AL E.CAPAC	IT GI
	C875	QETB1EM-106	10MF	25V	AL E.CAPAC	IT VX
	C876	QCBB1HK-101Y	100PF	50V	CER.CAPACI	TO
	C877	QCVB1CM-103Y	0.01MF	16V	CER.CAPACI	TO U
	C877	QCVB1CM-103Y	0.01MF	16V	CER.CAPACI	TO UC
	C877	QCVB1CM-103Y	0.01MF	16V	CER.CAPACI	TO US
	C877	QCVB1CM-103Y	0.01MF	16V	CER.CAPACI	TO UT
	C878	QCBB1HK-101Y	100PF	50V	CER.CAPACI	TO
	C880	QETB1CM-226	22MF	16V	E.CAPACITO	R
	C881	QETB1CM-226	22MF	16V	E.CAPACITO	R
	C882	QETB1HM-105	1MF	50V	AL E.CAPAC	IT
	C883	QETB1HM-475	4.7MF	50V	ELECTRO	
	C892	QCBB1HK-471Y	470PF	50V	CER.CAPACI	TO A
	C892	QCBB1HK-471Y	470PF	50V	CER.CAPACI	TO BS
	C892	QCBB1HK-471Y	470PF	50V	CER.CAPACI	TO EF
	C892	QCBB1HK-471Y	470PF	50V	CER.CAPACI	TO EN
	C892	QCBB1HK-471Y	470PF	50V	CER.CAPACI	TO G
	C892	QCBB1HK-471Y	470PF	50V	CER.CAPACI	TO GI
	C892	QCBB1HK-471Y	470PF	50V	CER.CAPACI	TO VX

⚠ :SAFETY PARTS

RESISTORS

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	R501	QRD167J-102	1K	1/6W	CARBON RES	IS
	R502	QRD167J-102	1K	1/6W	CARBON RES	IS
	R503	QRD167J-104	100K	1/6W	CARBON RES	IS
	R504	QRD167J-104	100K	1/6W	CARBON RES	IS
	R505	ERD004J-471	470		NETWORK RE	SI
	R506	ERD004J-471	470		NETWORK RE	SI
	R507	QRD167J-471	470	1/6W	CARBON RES	IS
	R508	QRD167J-471	470	1/6W	CARBON RES	IS
	R509	QRD167J-104	100K	1/6W	CARBON RES	IS
	R510	QRD167J-104	100K	1/6W	CARBON RES	IS
	R511	QRD161J-242	2.4K	1/6W	CARBON RES	IS
	R512	QRD161J-242	2.4K	1/6W	CARBON RES	IS
	R513	QRD161J-242	2.4K	1/6W	CARBON RES	IS
	R514	QRD161J-242	2.4K	1/6W	CARBON RES	IS
⚠	R515	QRX014J-R22	0.22	1W	METAL FILM	R
⚠	R516	QRX014J-R22	0.22	1W	METAL FILM	R
⚠	R517	QRZ0077-101	100	1/4W	FUSIBLE RE	SI
⚠	R518	QRZ0077-100	10	1/4W	FUSIBLE RE	SI
⚠	R519	QRD14CJ-100S	10	1/4W	UNF.CARBON	R
⚠	R520	QRD14CJ-100S	10	1/4W	UNF.CARBON	R
⚠	R521	QRD14CJ-100S	10	1/4W	UNF.CARBON	R
⚠	R522	QRD14CJ-100S	10	1/4W	UNF.CARBON	R
	R529	QRD167J-103	10K	1/6W	CARBON RES	IS
	R530	QRD167J-154	150K	1/6W	CARBON RES	IS
	R531	QRD161J-303Y	30K	1/6W	CARBON RES	IS
⚠	R532	QRZ0077-100	10	1/4W	FUSIBLE RE	SI
⚠	R533	QRD14CJ-222S	2.2K	1/4W	UNF.CARBON	R
⚠	R534	QRD14CJ-222S	2.2K	1/4W	UNF.CARBON	R
	R536	QRD167J-472	4.7K	1/6W	CARBON RES	IS
	R537	QRD167J-104	100K	1/6W	CARBON RES	IS
	R538	QRD167J-104	100K	1/6W	CARBON RES	IS
	R539	QRD167J-103	10K	1/6W	CARBON RES	IS
	R540	QRD167J-104	100K	1/6W	CARBON RES	IS
	R541	QRD167J-103	10K	1/6W	CARBON RES	IS
	R542	QRD167J-222	2.2K	1/6W	CARBON RES	IS
	R543	QRD167J-823	82K	1/6W	CARBON RES	IS
	R544	QRD167J-104	100K	1/6W	CARBON RES	IS
⚠	R545	QRG022J-471AM	470	2W	OXIDE META	L
	R546	QRD167J-152	1.5K	1/6W	CARBON RES	IS
	R551	QRD167J-332	3.3K	1/6W	CARBON RES	IS

⚠ :SAFETY PARTS

RESISTORS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	R552	QRD167J-392	3.9K 1/6W CARBON RES	IS
	R553	QRD167J-472	4.7K 1/6W CARBON RES	IS
	R554	QRD167J-472	4.7K 1/6W CARBON RES	IS
	R555	QRD167J-472	4.7K 1/6W CARBON RES	IS
	R556	QRD167J-153	15K 1/6W CARBON RES	IS
	R557	QRD167J-103	10K 1/6W CARBON RES	IS
	R558	QRD167J-332	3.3K 1/6W CARBON RES	IS
	R559	QRD167J-222	2.2K 1/6W CARBON RES	IS
	R572	QRD167J-103	10K 1/6W CARBON RES	IS
	R573	QRD167J-102	1K 1/6W CARBON RES	IS
	R574	QRD167J-103	10K 1/6W CARBON RES	IS
	R575	QRD167J-103	10K 1/6W CARBON RES	IS
	R576	QRD167J-562	5.6K 1/6W CARBON RES	IS
⚠	R577	QRD14CJ-4R7S	4.7 1/4W UNF.CARBON	R
	R581	QRD12CJ-2R7SX	2.7 1/2W CARBON RES	IS
	R582	QRD12CJ-2R7SX	2.7 1/2W CARBON RES	IS
⚠	R591	QRD14CJ-222S	2.2K 1/4W UNF.CARBON	R
⚠	R592	QRZ0077-100	10 1/4W FUSIBLE RE	SI
	R595	QRD167J-104	100K 1/6W CARBON RES	IS U
	R595	QRD167J-104	100K 1/6W CARBON RES	IS UC
	R595	QRD167J-104	100K 1/6W CARBON RES	IS US
	R595	QRD167J-104	100K 1/6W CARBON RES	IS UT
	R596	QRD167J-104	100K 1/6W CARBON RES	IS U
	R596	QRD167J-104	100K 1/6W CARBON RES	IS UC
	R596	QRD167J-104	100K 1/6W CARBON RES	IS US
	R596	QRD167J-104	100K 1/6W CARBON RES	IS UT
	R597	QRD167J-104	100K 1/6W CARBON RES	IS U
	R597	QRD167J-104	100K 1/6W CARBON RES	IS UC
	R597	QRD167J-104	100K 1/6W CARBON RES	IS US
	R597	QRD167J-104	100K 1/6W CARBON RES	IS UT
	R871	QRD167J-102	1K 1/6W CARBON RES	IS
	R872	QRD167J-103	10K 1/6W CARBON RES	IS
	R873	QRD167J-471	470 1/6W CARBON RES	IS A
	R873	QRD167J-471	470 1/6W CARBON RES	IS BS
	R873	QRD167J-471	470 1/6W CARBON RES	IS EF
	R873	QRD167J-471	470 1/6W CARBON RES	IS EN
	R873	QRD167J-471	470 1/6W CARBON RES	IS G
	R873	QRD167J-471	470 1/6W CARBON RES	IS GI
	R873	QRD167J-471	470 1/6W CARBON RES	IS VX
	R874	QRD167J-104	100K 1/6W CARBON RES	IS A
	R874	QRD167J-104	100K 1/6W CARBON RES	IS BS
	R874	QRD167J-104	100K 1/6W CARBON RES	IS EF
	R874	QRD167J-104	100K 1/6W CARBON RES	IS EN
	R874	QRD167J-104	100K 1/6W CARBON RES	IS G
	R874	QRD167J-104	100K 1/6W CARBON RES	IS GI
	R874	QRD167J-104	100K 1/6W CARBON RES	IS VX
	R875	QRD161J-681	680 1/6W CARBON RES	IS A
	R875	QRD161J-681	680 1/6W CARBON RES	IS BS
	R875	QRD161J-681	680 1/6W CARBON RES	IS EF
	R875	QRD161J-681	680 1/6W CARBON RES	IS EN
	R875	QRD161J-681	680 1/6W CARBON RES	IS G
	R875	QRD161J-681	680 1/6W CARBON RES	IS GI
	R875	QRD161J-681	680 1/6W CARBON RES	IS VX
	R876	QRD167J-104	100K 1/6W CARBON RES	IS
	R878	QRD167J-104	100K 1/6W CARBON RES	IS U
	R878	QRD167J-104	100K 1/6W CARBON RES	IS UC
	R878	QRD167J-104	100K 1/6W CARBON RES	IS US
	R878	QRD167J-104	100K 1/6W CARBON RES	IS UT
	R879	QRD161J-203	20K 1/6W CARBON RES	IS U
	R879	QRD161J-203	20K 1/6W CARBON RES	IS UC
	R879	QRD161J-203	20K 1/6W CARBON RES	IS US
	R879	QRD161J-203	20K 1/6W CARBON RES	IS UT
	R880	QRD161J-221	220 1/6W CARBON RES	IS A
	R880	QRD161J-221	220 1/6W CARBON RES	IS BS
	R880	QRD161J-221	220 1/6W CARBON RES	IS EF
	R880	QRD161J-221	220 1/6W CARBON RES	IS EN
	R880	QRD161J-221	220 1/6W CARBON RES	IS G
	R880	QRD161J-221	220 1/6W CARBON RES	IS GI
⚠	R880	QRD14CJ-220S	22 1/4W UNF.CARBON	R U
⚠	R880	QRD14CJ-220S	22 1/4W UNF.CARBON	R UC
⚠	R880	QRD14CJ-220S	22 1/4W UNF.CARBON	R US
⚠	R880	QRD14CJ-220S	22 1/4W UNF.CARBON	R UT
	R880	QRD161J-221	220 1/6W CARBON RES	IS VX
	R890	QRD161J-681	680 1/6W CARBON RES	IS
	R891	QRD161J-681	680 1/6W CARBON RES	IS
	R892	QRD161J-681	680 1/6W CARBON RES	IS
	R893	QRD161J-681	680 1/6W CARBON RES	IS

⚠ : SAFETY PARTS

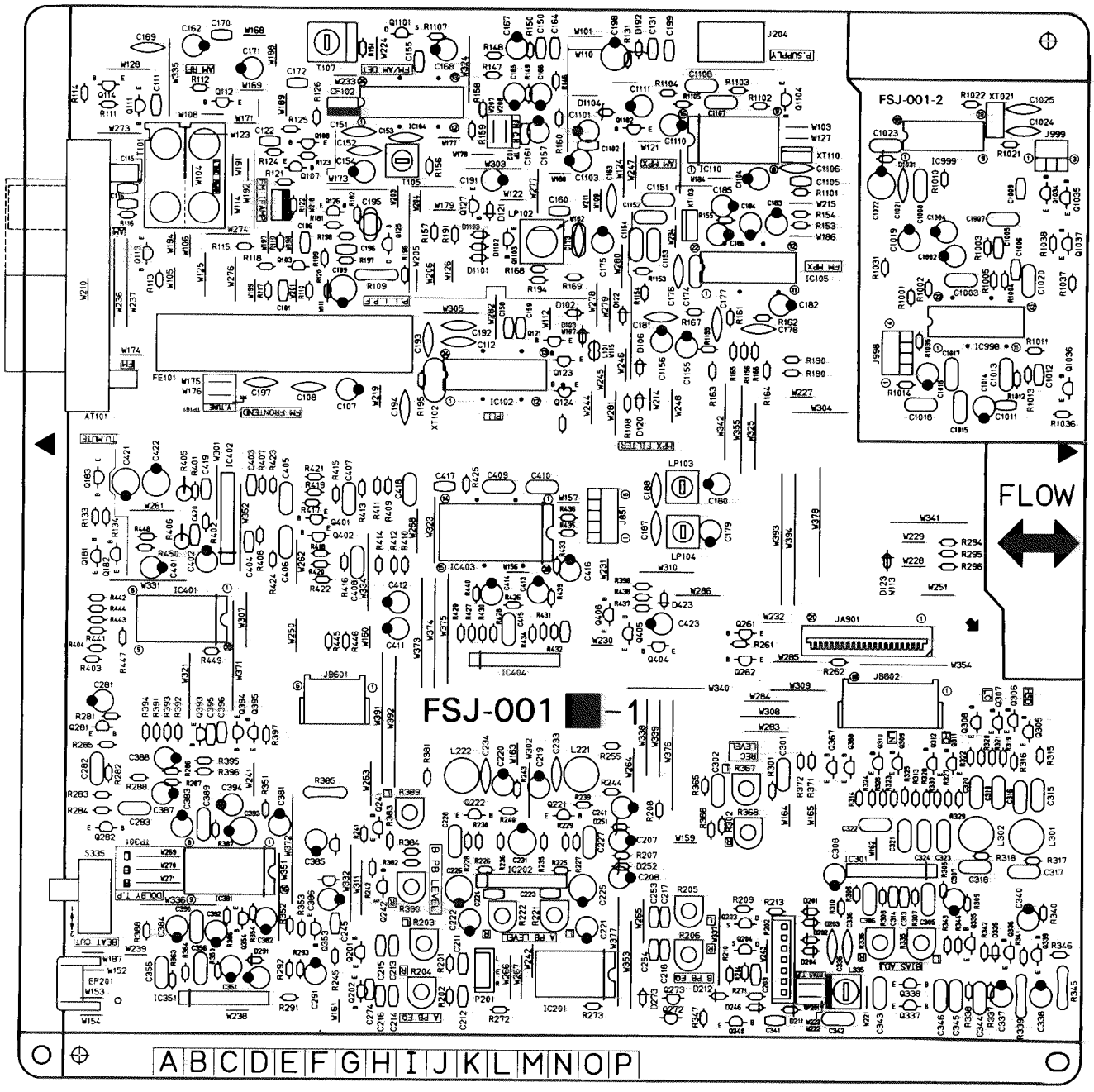
OTHERS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
		QWE881-24RR	VINYL WIRE	U
		QWE882-24RR	VINYL WIRE	U
		QWE883-24RR	VINYL WIRE	U
		QWE884-26RR	VINYL WIRE	U
		QWE886-18RR	VINYL WIRE	U
		QWE888-22RR	VINYL WIRE	U
		QWE881-24RR	VINYL WIRE	UC
		QWE882-24RR	VINYL WIRE	UC
		QWE883-24RR	VINYL WIRE	UC
		QWE884-26RR	VINYL WIRE	UC
		QWE886-18RR	VINYL WIRE	UC
		QWE888-22RR	VINYL WIRE	UC
		QWE881-24RR	VINYL WIRE	US
		QWE882-24RR	VINYL WIRE	US
		QWE883-24RR	VINYL WIRE	US
		QWE884-26RR	VINYL WIRE	US
		QWE886-18RR	VINYL WIRE	US
		QWE888-22RR	VINYL WIRE	US
		QWE881-24RR	VINYL WIRE	UT
		QWE882-24RR	VINYL WIRE	UT
		QWE883-24RR	VINYL WIRE	UT
		QWE884-26RR	VINYL WIRE	UT
		QWE886-18RR	VINYL WIRE	UT
		QWE888-22RR	VINYL WIRE	UT
	J511	EMV7125-008R	MALE CONNECTOR(8PIN)	
	J512	EMV5109-003B	CONNECT TERMINAL(3PIN)	
	J521	EMV7125-011R	MALE CONNECTOR(11PIN)	
	J531	EMV7122-005	MALE CONNECTOR(5PIN)	
	J541	EMB90TV-402A	SPEAKER TERMINAL	
	J871	VMJ4024-001	HEADPHONE JACK	
	J872	VMJ4024-001	HEADPHONE JACK	
	J911	EMV7122-005	MALE CONNECTOR(5PIN)	
	L501	EQL0011-R45J1	INDUCTOR	
	L502	EQL0011-R45J1	INDUCTOR	
	P204	EMV5125-006	CONNECT TERMINAL(6PIN)	
	P511	EMV5125-008	MALE CONNECTOR(8PIN)	
	P521	EMV5125-011	MALE CONNECTOR(11PIN)	
⚠	S001	QSR0085-018	SELECT SWITCH	U
⚠	S001	QSR0085-018	SELECT SWITCH	UC
⚠	S001	QSR0085-018	SELECT SWITCH	US
⚠	S001	QSR0085-018	SELECT SWITCH	UT
	EP501	EMZ4002-001	IM EARTH PLATE	
	FT001	VMZ0087-001	FUSE CLIP	
	FT002	VMZ0087-001	FUSE CLIP	
	FT003	VMZ0087-001	FUSE CLIP	
	FT004	VMZ0087-001	FUSE CLIP	
	FT005	VMZ0087-001	FUSE CLIP	
	FT006	VMZ0087-001	FUSE CLIP	
	FT007	VMZ0087-001	FUSE CLIP	U
	FT007	VMZ0087-001	FUSE CLIP	UC
	FT007	VMZ0087-001	FUSE CLIP	US
	FT007	VMZ0087-001	FUSE CLIP	UT
	FT008	VMZ0087-001	FUSE CLIP	U
	FT008	VMZ0087-001	FUSE CLIP	UC
	FT008	VMZ0087-001	FUSE CLIP	US
	FT008	VMZ0087-001	FUSE CLIP	UT
	FW501	EWR39E-10LS	FLAT WIRE(9PIN)	
	FW502	EWR35D-08SS	FLAT WIRE ASSY(5PIN)	
	FW531	EWR35D-25LS	FLAT WIRE ASSY(5PIN)	
	FW601	EWR37D-20LS	FLAT WIRE ASSY(7PIN)	
	FW998	EWR34D-20LS	FLAT WIRE ASSY(4PIN)	U
	FW998	EWR34D-20LS	FLAT WIRE ASSY(4PIN)	UC
	FW998	EWR34D-20LS	FLAT WIRE ASSY(4PIN)	US
	FW998	EWR34D-20LS	FLAT WIRE ASSY(4PIN)	UT
	JB803	EMV5122-006R	CONNECT TERMINAL(6PIN)	
	JT501	EMV7122-004	CONNECT TERMINAL(4PIN)	
	JT502	EMV7122-005	MALE CONNECTOR(5PIN)	
	RY501	ESK7D24-2120	RELAY	
	TB001	EMZ4001-001	TAB	
	TB002	EMZ4001-001	TAB	

⚠ : SAFETY PARTS

■FSJ-001 ☐ Deck PC Board Ass'y

Note: FSJ-001 ☐ varies according to the areas employed.See note (1) when placing an order.



Note (1)

PC Board Ass'y	Version	Designated Areas
FSJ-001 [A]	U UC US UT	Universal Type China Singapore Taiwan
FSJ-001 [B]	A	Australia
FSJ-001 [C]	EN EF	Scandinavia Continental Europe
FSJ-001 [D]	G	Germany
FSJ-001 [E]	BS	the U.K.
FSJ-001 [F]	GI	Italy
FSJ-001 [G]	VX	East Europe

TRANSISTORS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q103	2SC461(B,C)	SI.TRANSISTHITACHI	
	Q107	2SC535(B,C)	SI.TRANSIST	
	Q108	2SC461(B,C)	SI.TRANSISTHITACHI	
	Q111	2SD2144S(VW)	SI.TRANSISTROHM	BS
	Q111	2SD2144S(VW)	SI.TRANSISTROHM	EF
	Q111	2SD2144S(VW)	SI.TRANSISTROHM	EN
	Q111	2SD2144S(VW)	SI.TRANSISTROHM	G
	Q111	2SD2144S(VW)	SI.TRANSISTROHM	GI
	Q111	2SD2144S(VW)	SI.TRANSISTROHM	VX
	Q112	2SD2144S(VW)	SI.TRANSISTROHM	BS
	Q112	2SD2144S(VW)	SI.TRANSISTROHM	EF
	Q112	2SD2144S(VW)	SI.TRANSISTROHM	EN
	Q112	2SD2144S(VW)	SI.TRANSISTROHM	G
	Q112	2SD2144S(VW)	SI.TRANSISTROHM	GI
	Q112	2SD2144S(VW)	SI.TRANSISTROHM	VX
	Q113	2SD2144S(VW)	SI.TRANSISTROHM	BS
	Q113	2SD2144S(VW)	SI.TRANSISTROHM	EF
	Q113	2SD2144S(VW)	SI.TRANSISTROHM	EN
	Q113	2SD2144S(VW)	SI.TRANSISTROHM	G
	Q113	2SD2144S(VW)	SI.TRANSISTROHM	GI

⚠ : SAFETY PARTS

TRANSISTORS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q113	2SD2144S(VW)	SI.TRANSISTROHM	VX
	Q114	2SC3311A(Q,R)	SI.TRANSISTMATSUSHITA	BS
	Q114	2SC3311A(Q,R)	SI.TRANSISTMATSUSHITA	EF
	Q114	2SC3311A(Q,R)	SI.TRANSISTMATSUSHITA	EN
	Q114	2SC3311A(Q,R)	SI.TRANSISTMATSUSHITA	G
	Q114	2SC3311A(Q,R)	SI.TRANSISTMATSUSHITA	GI
	Q114	2SC3311A(Q,R)	SI.TRANSISTMATSUSHITA	VX
	Q121	BN1L4M	DIGITAL TRA	BS
	Q121	BN1L4M	DIGITAL TRA	EF
	Q121	BN1L4M	DIGITAL TRA	EN
	Q121	BN1L4M	DIGITAL TRA	G
	Q121	BN1L4M	DIGITAL TRA	GI
	Q121	BN1L4M	DIGITAL TRA	VX
	Q123	BN1L4M	DIGITAL TRA	
	Q124	BN1L4M	DIGITAL TRA	
	Q125	2SK301(Q2)	F.E.T.	
	Q126	2SC3311A(Q,R)	SI.TRANSISTMATSUSHITA	
	Q127	BA1L4M-T	D.TR.I.M	
	Q201	BA1L4M-T	D.TR.I.M	
	Q202	BA1L4M-T	D.TR.I.M	
	Q203	2SK373(O,Y)	F.E.T. TOSHIBA	
	Q204	2SK373(O,Y)	F.E.T. TOSHIBA	
	Q221	2SA1175(HFE)	SI.TRANSIST	
	Q222	2SA1175(HFE)	SI.TRANSIST	
	Q241	2SC3311A(Q,R)	SI.TRANSISTMATSUSHITA	
	Q242	2SC3311A(Q,R)	SI.TRANSISTMATSUSHITA	
	Q261	BA1L4M	D.TR.I.M	
	Q262	BA1L4M	D.TR.I.M	
	Q272	BN1L4M	DIGITAL TRA	
	Q273	BN1L4M	DIGITAL TRA	
	Q281	2SC3311A(Q,R)	SI.TRANSISTMATSUSHITA	
	Q282	2SC3311A(Q,R)	SI.TRANSISTMATSUSHITA	
	Q305	DTC144TS	DIGITAL TRAROHM	
	Q306	DTC144TS	DIGITAL TRAROHM	
	Q307	DTC144TS	DIGITAL TRAROHM	
	Q308	DTC144TS	DIGITAL TRAROHM	
	Q309	DTC144TS	DIGITAL TRAROHM	
	Q310	DTC144TS	DIGITAL TRAROHM	
	Q311	DTC144TS	DIGITAL TRAROHM	
	Q312	DTC144TS	DIGITAL TRAROHM	
	Q335	2SC945A	SI.TRANSISTNEC	
	Q336	2SC945A	SI.TRANSISTNEC	
	Q337	2SC3311A(Q,R)	SI.TRANSISTMATSUSHITA	
	Q338	2SC3311A(Q,R)	SI.TRANSISTMATSUSHITA	
	Q339	BA1L4M	D.TR.I.M	
	Q340	2SC945A	SI.TRANSISTNEC	BS
	Q340	2SC945A	SI.TRANSISTNEC	EF
	Q340	2SC945A	SI.TRANSISTNEC	EN
	Q340	2SC945A	SI.TRANSISTNEC	G
	Q340	2SC945A	SI.TRANSISTNEC	GI
	Q340	2SC945A	SI.TRANSISTNEC	VX
	Q353	2SC3311A(Q,R)	SI.TRANSISTMATSUSHITA	
	Q354	2SC3311A(Q,R)	SI.TRANSISTMATSUSHITA	
	Q367	2SD2144S(VW)	SI.TRANSISTROHM	
	Q368	2SD2144S(VW)	SI.TRANSISTROHM	
	Q393	2SD2144S(VW)	SI.TRANSISTROHM	
	Q394	2SD2144S(VW)	SI.TRANSISTROHM	
	Q395	BN1L4M	DIGITAL TRA	
	Q401	DTC144TS	DIGITAL TRAROHM	
	Q402	DTC144TS	DIGITAL TRAROHM	
	Q404	BN1L4M	DIGITAL TRA	
	Q405	2SD2144S(VW)	SI.TRANSISTROHM	
	Q406	2SD2144S(VW)	SI.TRANSISTROHM	
	Q1034	BA1L4M	D.TR.I.M	U
	Q1034	BA1L4M	D.TR.I.M	UC
	Q1034	BA1L4M	D.TR.I.M	US
	Q1034	BA1L4M	D.TR.I.M	UT
	Q1035	BA1L4M	D.TR.I.M	U
	Q1035	BA1L4M	D.TR.I.M	UC
	Q1035	BA1L4M	D.TR.I.M	US
	Q1035	BA1L4M	D.TR.I.M	UT
	Q1036	BA1L4M	D.TR.I.M	U
	Q1036	BA1L4M	D.TR.I.M	UC
	Q1036	BA1L4M	D.TR.I.M	US
	Q1036	BA1L4M	D.TR.I.M	UT
	Q1037	BA1L4M	D.TR.I.M	U
	Q1037	BA1L4M	D.TR.I.M	UC
	Q1037	BA1L4M	D.TR.I.M	US
	Q1037	BA1L4M	D.TR.I.M	UT

⚠ : SAFETY PARTS

I. C. S.

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC102	LC7218	I.C(DIGI-MO	
	IC104	LA1266A	I.C(MONO-ANSANYO	
	IC105	LA3401	I.C(MONO-ANSANYO	
	IC201	BU4066B	I.C(DIGI-MO	
	IC202	UPC1228HA	I.C(MONO-ANNEC	

⚠ : SAFETY PARTS

I. C. S.

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC301	NJM4580L-S	I.C(MONO-ANOOSO	
	IC351	BA8221N	I.C(MONO-ANROHM	
	IC381	HA12136A	I.C(MONO-ANHITACHI	
	IC401	TC4052BP	I.C(DIGI-MOTOSHIBA	
	IC402	NJM4580L-S	I.C(MONO-ANOOSO	
	IC403	TC9162N	I.C(DIGI-MOTOSHIBA	
	IC404	NJM4580L-S	I.C(MONO-ANOOSO	
	IC998	BA7725S	I.C(M) ROHM	U
	IC998	BA7725S	I.C(M) ROHM	UC
	IC998	BA7725S	I.C(M) ROHM	US
	IC998	BA7725S	I.C(M) ROHM	UT
	IC999	BU9251S	I.C(M) ROHM	U
	IC999	BU9251S	I.C(M) ROHM	UC
	IC999	BU9251S	I.C(M) ROHM	US
	IC999	BU9251S	I.C(M) ROHM	UT

⚠ : SAFETY PARTS

DIODES

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	D102	1SS133	SI.DIODE ROHM	BS
	D102	1SS133	SI.DIODE ROHM	EF
	D102	1SS133	SI.DIODE ROHM	EN
	D102	1SS133	SI.DIODE ROHM	G
	D102	1SS133	SI.DIODE ROHM	GI
	D102	1SS133	SI.DIODE ROHM	VX
	D103	1SS133	SI.DIODE ROHM	BS
	D103	1SS133	SI.DIODE ROHM	EF
	D103	1SS133	SI.DIODE ROHM	EN
	D103	1SS133	SI.DIODE ROHM	G
	D103	1SS133	SI.DIODE ROHM	GI
	D103	1SS133	SI.DIODE ROHM	VX
	D106	1SS133	SI.DIODE ROHM	
	D120	1SS133	SI.DIODE ROHM	
	D121	1SS133	SI.DIODE ROHM	
	D122	1SS133	SI.DIODE ROHM	
	D123	1SS133	SI.DIODE ROHM	
	D192	MTZ5.1JC	ZENER DIODEROHM	
	D201	1SS119	SI.DIODE	
	D202	1SS119	SI.DIODE	
	D203	1SS119	SI.DIODE	
	D204	1SS119	SI.DIODE	
	D211	1SS119	SI.DIODE	
	D212	1SS119	SI.DIODE	
	D251	MTZ5.1JC	ZENER DIODEROHM	
	D252	MTZ5.1JC	ZENER DIODEROHM	
	D273	1SS119	SI.DIODE	
	D291	1SS119	SI.DIODE	
	D335	1SS119	SI.DIODE	
	D346	1SS119	SI.DIODE	A
	D346	1SS119	SI.DIODE	BS
	D346	1SS119	SI.DIODE	EF
	D346	1SS119	SI.DIODE	EN
	D346	1SS119	SI.DIODE	G
	D346	1SS119	SI.DIODE	GI
	D346	1SS119	SI.DIODE	VX
	D423	1SS119	SI.DIODE	
	D1031	MTZ5.1JC	ZENER DIODEROHM	U
	D1031	MTZ5.1JC	ZENER DIODEROHM	UC
	D1031	MTZ5.1JC	ZENER DIODEROHM	US
	D1031	MTZ5.1JC	ZENER DIODEROHM	UT

⚠ : SAFETY PARTS

CAPACITORS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	C101	QCHB1EZ-223	0.022MF 25V CER.CAPACITO	
	C103	QCHB1EZ-223	0.022MF 25V CER.CAPACITO	VX
	C106	QCHB1EZ-223	0.022MF 25V CER.CAPACITO	
	C107	QETB1EM-226	22MF 25V E.CAPACITOR	BS
	C107	QETB1EM-226	22MF 25V E.CAPACITOR	EF
	C107	QETB1EM-226	22MF 25V E.CAPACITOR	EN
	C107	QETB1EM-226	22MF 25V E.CAPACITOR	G
	C107	QETB1EM-226	22MF 25V E.CAPACITOR	GI
	C108	QCF21HP-103A	0.01MF 50V CER.CAPACITO	
	C109	QETB1CM-227	220MF 16V AL E.CAPACIT	
	C111	QCHB1EZ-223	0.022MF 25V CER.CAPACITO	BS
	C111	QCHB1EZ-223	0.022MF 25V CER.CAPACITO	EF
	C111	QCHB1EZ-223	0.022MF 25V CER.CAPACITO	EN
	C111	QCHB1EZ-223	0.022MF 25V CER.CAPACITO	G
	C111	QCHB1EZ-223	0.022MF 25V CER.CAPACITO	GI
	C111	QCHB1EZ-223	0.022MF 25V CER.CAPACITO	VX
	C112	QCS21HJ-101A	100PF 50V CER.CAPACITO	
	C115	QCHB1EZ-223	0.022MF 25V CER.CAPACITO	
	C116	QCT30CH-120Y	12PF 50V CER.CAPACITO	
	C122	QCHB1EZ-223	0.022MF 25V CER.CAPACITO	

⚠ : SAFETY PARTS

C A P A C I T O R S

⚠	ITEM	PART NUMBER	D E S C R I P T I O N			AREA
	C131	QCHB1EZ-223	0.022MF	25V	CER.CAPACI	TO
	C150	QCHB1EZ-223	0.022MF	25V	CER.CAPACI	TO
	C151	QCF21HP-223A	0.022MF	50V	CER.CAPACI	TO
	C152	QCF21HP-223A	0.022MF	50V	CER.CAPACI	TO
	C153	QCC21EM-223	0.022MF	25V	CER.CAPACI	TO
	C155	QCHB1EZ-223	0.022MF	25V	CER.CAPACI	TO
	C157	QETB1HM-474	0.47MF	50V	ELECTRO	
	C158	QCBB1HK-101Y	100PF	50V	CER.CAPACI	TO
	C159	QCBB1HK-101Y	100PF	50V	CER.CAPACI	TO
	C160	QCBB1HK-221Y	220PF	50V	CER.CAPACI	TO
	C161	QCHB1EZ-223	0.022MF	25V	CER.CAPACI	TO
	C162	QETB1HM-106	10MF	50V	E.CAPACITO	R
	C163	QCF21HP-102	1000PF	50V	CERAMIC	
	C164	QCHB1EZ-223	0.022MF	25V	CER.CAPACI	TO
	C165	QETB1HM-474	0.47MF	50V	ELECTRO	
	C166	QETB1HM-225	2.2MF	50V	E.CAPACITO	R
	C167	QETB1HM-225	2.2MF	50V	E.CAPACITO	R
	C168	QETB1HM-475	4.7MF	50V	ELECTRO	
	C169	QCF21HP-223A	0.022MF	50V	CER.CAPACI	TO
	C170	QCHB1EZ-223	0.022MF	25V	CER.CAPACI	TO
	C171	QETB1HM-106	10MF	50V	E.CAPACITO	R
	C172	QCVB1CM-103Y	0.01MF	16V	CER.CAPACI	TO
	C173	QFLB1HJ-223	0.022MF	50V	MYLAR CAPA	CI A
	C173	QFLB1HJ-223	0.022MF	50V	MYLAR CAPA	CI BS
	C173	QFLB1HJ-223	0.022MF	50V	MYLAR CAPA	CI EF
	C173	QFLB1HJ-223	0.022MF	50V	MYLAR CAPA	CI EN
	C173	QFLB1HJ-223	0.022MF	50V	MYLAR CAPA	CI G
	C173	QFLB1HJ-223	0.022MF	50V	MYLAR CAPA	CI GI
	C173	QFLB1HJ-393	0.039MF	50V	MYLAR CAPA	CI U
	C173	QFLB1HJ-393	0.039MF	50V	MYLAR CAPA	CI UC
	C173	QFLB1HJ-393	0.039MF	50V	MYLAR CAPA	CI US
	C173	QFLB1HJ-393	0.039MF	50V	MYLAR CAPA	CI UT
	C173	QFLB1HJ-223	0.022MF	50V	MYLAR CAPA	CI VX
	C174	QFLB1HK-473	0.047MF	50V	MYLAR CAPA	CI
	C175	QETB1HM-106	10MF	50V	E.CAPACITO	R
	C176	QCF21HP-223A	0.022MF	50V	CER.CAPACI	TO
	C177	QCS21HJ-471	470PF	50V	CERAMIC	A
	C177	QCS21HJ-561	560PF	50V	CER.CAPACI	TO BS
	C177	QCS21HJ-471	470PF	50V	CERAMIC	EF
	C177	QCS21HJ-471	470PF	50V	CERAMIC	EN
	C177	QCS21HJ-471	470PF	50V	CERAMIC	G
	C177	QCS21HJ-471	470PF	50V	CERAMIC	GI
	C177	QCS21HJ-821	820PF	50V	CER.CAPACI	TO U
	C177	QCS21HJ-821	820PF	50V	CER.CAPACI	TO UC
	C177	QCS21HJ-821	820PF	50V	CER.CAPACI	TO US
	C177	QCS21HJ-821	820PF	50V	CER.CAPACI	TO UT
	C177	QCS21HJ-471	470PF	50V	CERAMIC	VX
	C178	QCS21HJ-471	470PF	50V	CERAMIC	A
	C178	QCS21HJ-561	560PF	50V	CER.CAPACI	TO BS
	C178	QCS21HJ-471	470PF	50V	CERAMIC	EF
	C178	QCS21HJ-471	470PF	50V	CERAMIC	EN
	C178	QCS21HJ-471	470PF	50V	CERAMIC	G
	C178	QCS21HJ-471	470PF	50V	CERAMIC	GI
	C178	QCS21HJ-821	820PF	50V	CER.CAPACI	TO U
	C178	QCS21HJ-821	820PF	50V	CER.CAPACI	TO UC
	C178	QCS21HJ-821	820PF	50V	CER.CAPACI	TO US
	C178	QCS21HJ-821	820PF	50V	CER.CAPACI	TO UT
	C178	QCS21HJ-471	470PF	50V	CERAMIC	VX
	C179	QETB1HM-225	2.2MF	50V	E.CAPACITO	R
	C180	QETB1HM-225	2.2MF	50V	E.CAPACITO	R
	C181	QCF21HP-473A	0.047MF	50V	CER.CAPACI	TO
	C182	QETB1HM-225	2.2MF	50V	E.CAPACITO	R
	C183	QETB1HM-105	1MF	50V	AL E.CAPAC	IT
	C184	QETB1HM-105	1MF	50V	AL E.CAPAC	IT
	C185	QETB1HM-225	2.2MF	50V	E.CAPACITO	R
	C186	QETB1HM-474	0.47MF	50V	ELECTRO	
	C187	QCY31HK-332Z	3300PF	50V	CER.CAPACI	TO
	C188	QCY31HK-332Z	3300PF	50V	CER.CAPACI	TO
	C191	QETB1HM-475	4.7MF	50V	ELECTRO	
	C192	QCC21EM-473	0.047MF	25V	CER.CAPACI	TO
	C193	QCS21HJ-180A	18PF	50V	CER.CAPACI	TO
	C194	QCS21HJ-180A	18PF	50V	CER.CAPACI	TO
	C195	QEN51HM-474	0.47MF	50V	NP E.CAPAC	IT
	C196	QCGB1HK-102	1000PF	50V	CER.CAPACI	TO
	C197	QCF21HP-223A	0.022MF	50V	CER.CAPACI	TO
	C203	QCHB1EZ-223	0.022MF	25V	CER.CAPACI	TO BS
	C203	QCHB1EZ-223	0.022MF	25V	CER.CAPACI	TO EF
	C203	QCHB1EZ-223	0.022MF	25V	CER.CAPACI	TO EN
	C203	QCHB1EZ-223	0.022MF	25V	CER.CAPACI	TO G
	C203	QCHB1EZ-223	0.022MF	25V	CER.CAPACI	TO GI
	C203	QCHB1EZ-223	0.022MF	25V	CER.CAPACI	TO VX
	C207	QETB1CM-476	47MF	16V	AL E.CAPAC	IT
	C208	QETB1CM-476	47MF	16V	AL E.CAPAC	IT
	C211	QCBB1HK-471Y	470PF	50V	CER.CAPACI	TO
	C212	QCBB1HK-471Y	470PF	50V	CER.CAPACI	TO
	C213	QCXB1CM-122	1200PF	16V	POLYPROPY.	FI
	C214	QCXB1CM-122	1200PF	16V	POLYPROPY.	FI
	C215	QCBB1HK-331Y	330PF	50V	CER.CAPACI	TO
	C216	QCBB1HK-331Y	330PF	50V	CER.CAPACI	TO
	C217	QCBB1HK-331Y	330PF	50V	CER.CAPACI	TO
	C218	QCBB1HK-331Y	330PF	50V	CER.CAPACI	TO
	C219	QETB1HM-225	2.2MF	50V	E.CAPACITO	R
	C220	QETB1HM-225	2.2MF	50V	E.CAPACITO	R
	C221	QETB1HM-225	2.2MF	50V	E.CAPACITO	R
	C222	QETB1HM-225	2.2MF	50V	E.CAPACITO	R

⚠ : SAFETY PARTS

C A P A C I T O R S

⚠	ITEM	PART NUMBER	D E S C R I P T I O N			AREA
	C223	QCBB1HK-101Y	100PF	50V	CER.CAPACI	TO
	C224	QCBB1HK-101Y	100PF	50V	CER.CAPACI	TO
	C225	QETB1CM-107	100MF	16V	AL E.CAPAC	IT
	C226	QETB1CM-107	100MF	16V	AL E.CAPAC	IT
	C227	QFLB1HJ-822	8200PF	50V	MYLAR CAPA	CI
	C228	QFLB1HJ-822	8200PF	50V	MYLAR CAPA	CI
	C231	QETB1CM-107	100MF	16V	AL E.CAPAC	IT
	C233	QCS21HJ-101A	100PF	50V	CER.CAPACI	TO
	C234	QCS21HJ-101A	100PF	50V	CER.CAPACI	TO
	C241	QETB1HM-106	10MF	50V	E.CAPACITO	R
	C245	QCVB1CM-103Y	0.01MF	16V	CER.CAPACI	TO
	C253	QCXB1CM-182	1800PF	16V	CERAMIC	
	C254	QCXB1CM-182	1800PF	16V	CERAMIC	
	C281	QETB1HM-105	1MF	50V	AL E.CAPAC	IT
	C282	QFLB1HJ-223	0.022MF	50V	MYLAR CAPA	CI
	C283	QFLB1HJ-223	0.022MF	50V	MYLAR CAPA	CI
	C291	QETB1CM-476	47MF	16V	AL E.CAPAC	IT
	C301	QFLB1HJ-104	0.1MF	50V	MYLAR CAPA	CI
	C302	QFLB1HJ-104	0.1MF	50V	MYLAR CAPA	CI
	C305	QCY21HK-272	2700PF	50V	CER.CAPACI	TO
	C306	QCY21HK-272	2700PF	50V	CER.CAPACI	TO
	C307	QETB1HM-225	2.2MF	50V	E.CAPACITO	R
	C308	QETB1HM-225	2.2MF	50V	E.CAPACITO	R
	C313	QCSB1HJ-470	47PF	50V	CER.CAPACI	TO
	C314	QCSB1HJ-470	47PF	50V	CER.CAPACI	TO
	C315	QFLB1HJ-103	0.01MF	50V	MYLAR CAPA	CI
	C316	QFLB1HJ-103	0.01MF	50V	MYLAR CAPA	CI
	C317	QCY21HK-562	5600PF	50V	CERAMIC	
	C318	QCY21HK-562	5600PF	50V	CERAMIC	
	C319	QFLB1HJ-223	0.022MF	50V	MYLAR CAPA	CI
	C320	QFLB1HJ-223	0.022MF	50V	MYLAR CAPA	CI
	C321	QFLB1HJ-822	8200PF	50V	MYLAR CAPA	CI
	C322	QFLB1HJ-822	8200PF	50V	MYLAR CAPA	CI
	C323	QFLB1HJ-682	6800PF	50V	MYLAR CAPA	CI
	C324	QFLB1HJ-682	6800PF	50V	MYLAR CAPA	CI
	C335	QCS21HJ-101A	100PF	50V	CER.CAPACI	TO
	C336	QCS21HJ-101A	100PF	50V	CER.CAPACI	TO
	C337	QETB1HM-106	10MF	50V	E.CAPACITO	R
	C338	QETB1CM-476	47MF	16V	AL E.CAPAC	IT
	C340	QETB1HM-105	1MF	50V	AL E.CAPAC	IT
	C341	QCBB1HK-561Y	560PF	50V	CER.CAPACI	TO BS
	C341	QCBB1HK-561Y	560PF	50V	CER.CAPACI	TO EF
	C341	QCBB1HK-561Y	560PF	50V	CER.CAPACI	TO EN
	C341	QCBB1HK-561Y	560PF	50V	CER.CAPACI	TO G
	C341	QCBB1HK-561Y	560PF	50V	CER.CAPACI	TO GI
	C341	QCBB1HK-561Y	560PF	50V	CER.CAPACI	TO VX
	C342	QFP81HJ-822	8200PF	50V	POLY	
	C343	QFLB1HJ-123	0.012MF	50V	MYLAR CAPA	CI
	C344	QFLB1HJ-222	2200PF	50V	MYLAR CAPA	CI
	C345	QFLB1HJ-222	2200PF	50V	MYLAR CAPA	CI
	C346	QFLB1HJ-682	6800PF	50V	MYLAR CAPA	CI
	C351	QETB1HM-106	10MF	50V	E.CAPACITO	R
	C355	QFLB1HJ-473	0.047MF	50V	MYLAR CAPA	CI
	C356	QFLB1HJ-473	0.047MF	50V	MYLAR CAPA	CI
	C381	QETB1HM-105	1MF	50V	AL E.CAPAC	IT
	C382	QETB1HM-105	1MF	50V	AL E.CAPAC	IT
	C383	QETB1HM-475	4.7MF	50V	ELECTRO	
	C384	QETB1HM-475	4.7MF	50V	ELECTRO	
	C385	QETB1HM-105	1MF	50V	AL E.CAPAC	IT
	C386	QETB1HM-105	1MF	50V	AL E.CAPAC	IT
	C387	QETB1HM-475	4.7MF	50V	ELECTRO	
	C388	QETB1HM-475	4.7MF	50V	ELECTRO	
	C389	QFV81HJ-224	0.22MF	50V	THIN FILM	CA
	C390	QFV81HJ-224	0.22MF	50V	THIN FILM	CA
	C392	QETB1HM-475	4.7MF	50V	ELECTRO	
	C393	QETB1CM-107	100MF	16V	AL E.CAPAC	IT
	C394	QETB1HM-475	4.7MF	50V	ELECTRO	
	C395	QCXB1CM-222	2200PF	16V	CER.CAPACI	TO BS
	C395	QCXB1CM-222	2200PF	16V	CER.CAPACI	TO EF
	C395	QCXB1CM-222	2200PF	16V	CER.CAPACI	TO EN
	C395	QCXB1CM-222	2200PF	16V	CER.CAPACI	TO G
	C395	QCXB1CM-222	2200PF	16V	CER.CAPACI	TO GI
	C395	QCXB1CM-222	2200PF	16V	CER.CAPACI	TO VX
	C396	QCXB1CM-222	2200PF	16V	CER.CAPACI	TO BS
	C396	QCXB1CM-222	2200PF	16V	CER.CAPACI	TO EF
	C396	QCXB1CM-222	2200PF	16V	CER.CAPACI	TO EN
	C396	QCXB1CM-222	2200PF	16V	CER.CAPACI	TO G
	C396	QCXB1CM-222	2200PF	16V	CER.CAPACI	TO GI
	C396	QCXB1CM-222	2200PF	16V	CER.CAPACI	TO VX
	C401	QETB1HM-475	4.7MF	50V	ELECTRO	
	C402	QETB1HM-475	4.7MF	50V	ELECTRO	
	C403	QCSB1HJ-220	22PF	50V	CER.CAPACI	TO
	C404	QCSB1HJ-220	22PF	50V	CER.CAPACI	TO
	C405	QFV81HJ-124	0.12MF	50V	THIN FILM	CA
	C406	QFV81HJ-124	0.12MF	50V	THIN FILM	CA
	C407	QFV81HJ-124	0.12MF	50V	THIN FILM	CA
	C408	QFV81HJ-124	0.12MF	50V	THIN FILM	CA
	C409	QFLB1HJ-103	0.01MF	50V	MYLAR CAPA	CI
	C410	QFLB1HJ-103	0.01MF	50V	MYLAR CAPA	CI
	C411	QETB1HM-475	4.7MF	50V	ELECTRO	
	C412	QETB1HM-475	4.7MF	50V	ELECTRO	
	C413	QETB1HM-475	4.7MF	50V	ELECTRO	
	C414	QETB1HM-475	4.7MF	50V	ELECTRO	
	C415	QFLB1HJ-683	0.068MF	50V	MYLAR CAPA	CI
	C416	QETB1HM-475	4.7MF	50V	ELECTRO	

⚠ : SAFETY PARTS

CAPACITORS

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	C417	QCBB1HK-561Y	560PF	50V	CER.CAPACI	TO
	C418	QFLB1HJ-563	0.056MF	50V	MYLAR CAPA	CI
	C419	QCSB1HJ-470	47PF	50V	CER.CAPACI	TO
	C420	QCSB1HJ-470	47PF	50V	CER.CAPACI	TO
	C421	QETB1CM-476	47MF	16V	AL E.CAPAC	IT
	C422	QETB1CM-476	47MF	16V	AL E.CAPAC	IT
	C423	QETB1HM-105	1MF	50V	AL E.CAPAC	IT
	C1002	QETB1CM-226	22MF	16V	E.CAPACITO	R U
	C1002	QETB1CM-226	22MF	16V	E.CAPACITO	R UC
	C1002	QETB1CM-226	22MF	16V	E.CAPACITO	R US
	C1002	QETB1CM-226	22MF	16V	E.CAPACITO	R UT
	C1003	QFLB1HJ-104	0.1MF	50V	MYLAR CAPA	CI U
	C1003	QFLB1HJ-104	0.1MF	50V	MYLAR CAPA	CI UC
	C1003	QFLB1HJ-104	0.1MF	50V	MYLAR CAPA	CI US
	C1003	QFLB1HJ-104	0.1MF	50V	MYLAR CAPA	CI UT
	C1004	QETB1HM-474	0.47MF	50V	ELECTRO	U
	C1004	QETB1HM-474	0.47MF	50V	ELECTRO	UC
	C1004	QETB1HM-474	0.47MF	50V	ELECTRO	US
	C1004	QETB1HM-474	0.47MF	50V	ELECTRO	UT
	C1005	QCXB1CM-562	5600PF	16V	CERAMIC	U
	C1005	QCXB1CM-562	5600PF	16V	CERAMIC	UC
	C1005	QCXB1CM-562	5600PF	16V	CERAMIC	US
	C1005	QCXB1CM-562	5600PF	16V	CERAMIC	UT
	C1006	QCGB1HK-821	820PF	50V	CER.CAPACI	TO U
	C1006	QCGB1HK-821	820PF	50V	CER.CAPACI	TO UC
	C1006	QCGB1HK-821	820PF	50V	CER.CAPACI	TO US
	C1006	QCGB1HK-821	820PF	50V	CER.CAPACI	TO UT
	C1007	QFLB1HJ-183	0.018MF	50V	MYLAR CAPA	CI U
	C1007	QFLB1HJ-183	0.018MF	50V	MYLAR CAPA	CI UC
	C1007	QFLB1HJ-183	0.018MF	50V	MYLAR CAPA	CI US
	C1007	QFLB1HJ-183	0.018MF	50V	MYLAR CAPA	CI UT
	C1008	QFLB1HJ-104	0.1MF	50V	MYLAR CAPA	CI U
	C1008	QFLB1HJ-104	0.1MF	50V	MYLAR CAPA	CI UC
	C1008	QFLB1HJ-104	0.1MF	50V	MYLAR CAPA	CI US
	C1008	QFLB1HJ-104	0.1MF	50V	MYLAR CAPA	CI UT
	C1009	QCXB1CM-682	6800PF	16V	CER.CAPACI	TO U
	C1009	QCXB1CM-682	6800PF	16V	CER.CAPACI	TO UC
	C1009	QCXB1CM-682	6800PF	16V	CER.CAPACI	TO US
	C1009	QCXB1CM-682	6800PF	16V	CER.CAPACI	TO UT
	C1011	QCGB1HK-821	820PF	50V	CER.CAPACI	TO U
	C1011	QCGB1HK-821	820PF	50V	CER.CAPACI	TO UC
	C1011	QCGB1HK-821	820PF	50V	CER.CAPACI	TO US
	C1011	QCGB1HK-821	820PF	50V	CER.CAPACI	TO UT
	C1012	QCXB1CM-562	5600PF	16V	CERAMIC	U
	C1012	QCXB1CM-562	5600PF	16V	CERAMIC	UC
	C1012	QCXB1CM-562	5600PF	16V	CERAMIC	US
	C1012	QCXB1CM-562	5600PF	16V	CERAMIC	UT
	C1013	QFLB1HJ-183	0.018MF	50V	MYLAR CAPA	CI U
	C1013	QFLB1HJ-183	0.018MF	50V	MYLAR CAPA	CI UC
	C1013	QFLB1HJ-183	0.018MF	50V	MYLAR CAPA	CI US
	C1013	QFLB1HJ-183	0.018MF	50V	MYLAR CAPA	CI UT
	C1014	QETB1HM-474	0.47MF	50V	ELECTRO	U
	C1014	QETB1HM-474	0.47MF	50V	ELECTRO	UC
	C1014	QETB1HM-474	0.47MF	50V	ELECTRO	US
	C1014	QETB1HM-474	0.47MF	50V	ELECTRO	UT
	C1015	QFV81HJ-104	0.1MF	50V	THIN FILM	CA U
	C1015	QFV81HJ-104	0.1MF	50V	THIN FILM	CA UC
	C1015	QFV81HJ-104	0.1MF	50V	THIN FILM	CA US
	C1015	QFV81HJ-104	0.1MF	50V	THIN FILM	CA UT
	C1016	QETB1HM-105	1MF	50V	AL E.CAPAC	IT U
	C1016	QETB1HM-105	1MF	50V	AL E.CAPAC	IT UC
	C1016	QETB1HM-105	1MF	50V	AL E.CAPAC	IT US
	C1016	QETB1HM-105	1MF	50V	AL E.CAPAC	IT UT
	C1017	QFV81HJ-104	0.1MF	50V	THIN FILM	CA U
	C1017	QFV81HJ-104	0.1MF	50V	THIN FILM	CA UC
	C1017	QFV81HJ-104	0.1MF	50V	THIN FILM	CA US
	C1017	QFV81HJ-104	0.1MF	50V	THIN FILM	CA UT
	C1018	QFLB1HJ-104	0.1MF	50V	MYLAR CAPA	CI U
	C1018	QFLB1HJ-104	0.1MF	50V	MYLAR CAPA	CI UC
	C1018	QFLB1HJ-104	0.1MF	50V	MYLAR CAPA	CI US
	C1018	QFLB1HJ-104	0.1MF	50V	MYLAR CAPA	CI UT
	C1019	QETB1CM-476	47MF	16V	AL E.CAPAC	IT U
	C1019	QETB1CM-476	47MF	16V	AL E.CAPAC	IT UC
	C1019	QETB1CM-476	47MF	16V	AL E.CAPAC	IT US
	C1019	QETB1CM-476	47MF	16V	AL E.CAPAC	IT UT
	C1020	QFLB1HJ-104	0.1MF	50V	MYLAR CAPA	CI U
	C1020	QFLB1HJ-104	0.1MF	50V	MYLAR CAPA	CI UC
	C1020	QFLB1HJ-104	0.1MF	50V	MYLAR CAPA	CI US
	C1020	QFLB1HJ-104	0.1MF	50V	MYLAR CAPA	CI UT
	C1021	QCS21HJ-221	220PF	50V	CER.CAPACI	TO U
	C1021	QCS21HJ-221	220PF	50V	CER.CAPACI	TO UC
	C1021	QCS21HJ-221	220PF	50V	CER.CAPACI	TO US
	C1021	QCS21HJ-221	220PF	50V	CER.CAPACI	TO UT
	C1022	QETB1CM-107	100MF	16V	AL E.CAPAC	IT U
	C1022	QETB1CM-107	100MF	16V	AL E.CAPAC	IT UC
	C1022	QETB1CM-107	100MF	16V	AL E.CAPAC	IT US
	C1022	QETB1CM-107	100MF	16V	AL E.CAPAC	IT UT
	C1023	QFLB1HJ-103	0.01MF	50V	MYLAR CAPA	CI U
	C1023	QFLB1HJ-103	0.01MF	50V	MYLAR CAPA	CI UC
	C1023	QFLB1HJ-103	0.01MF	50V	MYLAR CAPA	CI US
	C1023	QFLB1HJ-103	0.01MF	50V	MYLAR CAPA	CI UT
	C1024	QCS21HJ-101A	100PF	50V	CER.CAPACI	TO U
	C1024	QCS21HJ-101A	100PF	50V	CER.CAPACI	TO UC
	C1024	QCS21HJ-101A	100PF	50V	CER.CAPACI	TO US
	C1024	QCS21HJ-101A	100PF	50V	CER.CAPACI	TO UT

⚠ : SAFETY PARTS

CAPACITORS

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	C1025	QCS21HJ-101A	100PF	50V	CER.CAPACI	TO U
	C1025	QCS21HJ-101A	100PF	50V	CER.CAPACI	TO UC
	C1025	QCS21HJ-101A	100PF	50V	CER.CAPACI	TO US
	C1025	QCS21HJ-101A	100PF	50V	CER.CAPACI	TO UT

⚠ : SAFETY PARTS

RESISTORS

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	R108	QRD167J-103	10K	1/6W	CARBON RES	IS
⚠	R109	QRZ0077-680	68	1/4W	FUSIBLE RE	SI
	R110	QRD167J-473	47K	1/6W	CARBON RES	IS VX
	R111	QRD167J-472	4.7K	1/6W	CARBON RES	IS BS
	R111	QRD167J-472	4.7K	1/6W	CARBON RES	IS EF
	R111	QRD167J-472	4.7K	1/6W	CARBON RES	IS EN
	R111	QRD167J-472	4.7K	1/6W	CARBON RES	IS G
	R111	QRD167J-472	4.7K	1/6W	CARBON RES	IS GI
	R111	QRD167J-472	4.7K	1/6W	CARBON RES	IS VX
	R112	QRD167J-472	4.7K	1/6W	CARBON RES	IS BS
	R112	QRD167J-472	4.7K	1/6W	CARBON RES	IS EF
	R112	QRD167J-472	4.7K	1/6W	CARBON RES	IS EN
	R112	QRD167J-472	4.7K	1/6W	CARBON RES	IS G
	R112	QRD167J-472	4.7K	1/6W	CARBON RES	IS GI
	R112	QRD167J-472	4.7K	1/6W	CARBON RES	IS VX
	R113	QRD167J-472	4.7K	1/6W	CARBON RES	IS BS
	R113	QRD167J-472	4.7K	1/6W	CARBON RES	IS EF
	R113	QRD167J-472	4.7K	1/6W	CARBON RES	IS EN
	R113	QRD167J-472	4.7K	1/6W	CARBON RES	IS G
	R113	QRD167J-472	4.7K	1/6W	CARBON RES	IS GI
	R113	QRD167J-472	4.7K	1/6W	CARBON RES	IS VX
	R114	QRD167J-103	10K	1/6W	CARBON RES	IS BS
	R114	QRD167J-103	10K	1/6W	CARBON RES	IS EF
	R114	QRD167J-103	10K	1/6W	CARBON RES	IS EN
	R114	QRD167J-103	10K	1/6W	CARBON RES	IS G
	R114	QRD167J-103	10K	1/6W	CARBON RES	IS GI
	R114	QRD167J-103	10K	1/6W	CARBON RES	IS VX
	R115	QRD167J-103	10K	1/6W	CARBON RES	IS A
	R115	QRD167J-222	2.2K	1/6W	CARBON RES	IS BS
	R115	QRD167J-222	2.2K	1/6W	CARBON RES	IS EF
	R115	QRD167J-222	2.2K	1/6W	CARBON RES	IS EN
	R115	QRD167J-222	2.2K	1/6W	CARBON RES	IS G
	R115	QRD167J-222	2.2K	1/6W	CARBON RES	IS GI
	R115	QRD167J-103	10K	1/6W	CARBON RES	IS U
	R115	QRD167J-103	10K	1/6W	CARBON RES	IS UC
	R115	QRD167J-103	10K	1/6W	CARBON RES	IS US
	R115	QRD167J-103	10K	1/6W	CARBON RES	IS UT
	R115	QRD167J-222	2.2K	1/6W	CARBON RES	IS VX
	R116	QRD167J-104	100K	1/6W	CARBON RES	IS
	R117	QRD167J-103	10K	1/6W	CARBON RES	IS BS
	R117	QRD167J-103	10K	1/6W	CARBON RES	IS EF
	R117	QRD167J-103	10K	1/6W	CARBON RES	IS EN
	R117	QRD167J-103	10K	1/6W	CARBON RES	IS G
	R117	QRD167J-103	10K	1/6W	CARBON RES	IS GI
	R117	QRD167J-103	10K	1/6W	CARBON RES	IS VX
	R118	QRD167J-332	3.3K	1/6W	CARBON RES	IS
	R119	QRD161J-221	220	1/6W	CARBON RES	IS
	R120	QRD161J-101	100	1/6W	CARBON RES	IS BS
	R120	QRD161J-101	100	1/6W	CARBON RES	IS EF
	R120	QRD161J-101	100	1/6W	CARBON RES	IS EN
	R120	QRD161J-101	100	1/6W	CARBON RES	IS G
	R120	QRD161J-101	100	1/6W	CARBON RES	IS GI
	R120	QRD161J-101	100	1/6W	CARBON RES	IS VX
	R121	QRD167J-391	390	1/6W	CARBON RES	IS
	R122	QRD167J-272	2.7K	1/6W	CARBON RES	IS
	R123	QRD167J-102	1K	1/6W	CARBON RES	IS
	R124	QRD161J-681	680	1/6W	CARBON RES	IS
	R125	QRD167J-332	3.3K	1/6W	CARBON RES	IS
	R126	QRD161J-221	220	1/6W	CARBON RES	IS
	R131	QRD167J-222	2.2K	1/6W	CARBON RES	IS
	R146	QRD167J-560	56	1/6W	CARBON RES	IS
	R147	QRD167J-103	10K	1/6W	CARBON RES	IS
	R148	QRD167J-103	10K	1/6W	CARBON RES	IS
	R149	QRD167J-223	22K	1/6W	CARBON RES	IS
	R150	QRD167J-103	10K	1/6W	CARBON RES	IS
	R151	QRD167J-222	2.2K	1/6W	CARBON RES	IS
	R153	QRD167J-103	10K	1/6W	CARBON RES	IS
	R154	QRD167J-103	10K	1/6W	CARBON RES	IS
	R155	QRD167J-562	5.6K	1/6W	CARBON RES	IS
	R156	QRD167J-822	8.2K	1/6W	CARBON RES	IS
	R157	QRD167J-103	10K	1/6W	CARBON RES	IS
	R158	QRD161J-273	27K	1/6W	CARBON RES	IS
	R159	QRD161J-561	560	1/6W	CARBON RES	IS
	R160	QRD161J-183	18K	1/6W	CARBON RES	IS A
	R160	QRD167J-822	8.2K	1/6W	CARBON RES	IS BS
	R160	QRD161J-183	18K	1/6W	CARBON RES	IS EF
	R160	QRD161J-183	18K	1/6W	CARBON RES	IS EN
	R160	QRD161J-183	18K	1/6W	CARBON RES	IS G
	R160	QRD161J-183	18K	1/6W	CARBON RES	IS GI
	R160	QRD167J-562	5.6K	1/6W	CARBON RES	IS U

⚠ : SAFETY PARTS

RESISTORS

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	R160	QRD167J-562	5.6K	1/6W	CARBON RES	IS UC
	R160	QRD167J-562	5.6K	1/6W	CARBON RES	IS US
	R160	QRD167J-562	5.6K	1/6W	CARBON RES	IS UT
	R160	QRD161J-183	18K	1/6W	CARBON RES	IS VX
	R161	QRD161J-124	120K	1/6W	CARBON RES	IS A
	R161	QRD167J-823	82K	1/6W	CARBON RES	IS BS
	R161	QRD161J-124	120K	1/6W	CARBON RES	IS EF
	R161	QRD161J-124	120K	1/6W	CARBON RES	IS EN
	R161	QRD161J-124	120K	1/6W	CARBON RES	IS G
	R161	QRD161J-124	120K	1/6W	CARBON RES	IS GI
	R161	QRD167J-823	82K	1/6W	CARBON RES	IS U
	R161	QRD167J-823	82K	1/6W	CARBON RES	IS UC
	R161	QRD167J-823	82K	1/6W	CARBON RES	IS US
	R161	QRD167J-823	82K	1/6W	CARBON RES	IS UT
	R161	QRD161J-124	120K	1/6W	CARBON RES	IS VX
	R162	QRD161J-124	120K	1/6W	CARBON RES	IS A
	R162	QRD167J-823	82K	1/6W	CARBON RES	IS BS
	R162	QRD161J-124	120K	1/6W	CARBON RES	IS EF
	R162	QRD161J-124	120K	1/6W	CARBON RES	IS EN
	R162	QRD161J-124	120K	1/6W	CARBON RES	IS G
	R162	QRD161J-124	120K	1/6W	CARBON RES	IS GI
	R162	QRD167J-823	82K	1/6W	CARBON RES	IS U
	R162	QRD167J-823	82K	1/6W	CARBON RES	IS UC
	R162	QRD167J-823	82K	1/6W	CARBON RES	IS US
	R162	QRD167J-823	82K	1/6W	CARBON RES	IS UT
	R162	QRD161J-124	120K	1/6W	CARBON RES	IS VX
	R163	QRD167J-332	3.3K	1/6W	CARBON RES	IS A
	R163	QRD167J-332	3.3K	1/6W	CARBON RES	IS BS
	R163	QRD167J-332	3.3K	1/6W	CARBON RES	IS EF
	R163	QRD167J-332	3.3K	1/6W	CARBON RES	IS EN
	R163	QRD167J-332	3.3K	1/6W	CARBON RES	IS G
	R163	QRD167J-332	3.3K	1/6W	CARBON RES	IS GI
	R163	QRD167J-472	4.7K	1/6W	CARBON RES	IS U
	R163	QRD167J-472	4.7K	1/6W	CARBON RES	IS UC
	R163	QRD167J-472	4.7K	1/6W	CARBON RES	IS US
	R163	QRD167J-472	4.7K	1/6W	CARBON RES	IS UT
	R163	QRD167J-332	3.3K	1/6W	CARBON RES	IS VX
	R164	QRD167J-332	3.3K	1/6W	CARBON RES	IS A
	R164	QRD167J-332	3.3K	1/6W	CARBON RES	IS BS
	R164	QRD167J-332	3.3K	1/6W	CARBON RES	IS EF
	R164	QRD167J-332	3.3K	1/6W	CARBON RES	IS EN
	R164	QRD167J-332	3.3K	1/6W	CARBON RES	IS G
	R164	QRD167J-332	3.3K	1/6W	CARBON RES	IS GI
	R164	QRD167J-472	4.7K	1/6W	CARBON RES	IS U
	R164	QRD167J-472	4.7K	1/6W	CARBON RES	IS UC
	R164	QRD167J-472	4.7K	1/6W	CARBON RES	IS US
	R164	QRD167J-472	4.7K	1/6W	CARBON RES	IS UT
	R164	QRD167J-332	3.3K	1/6W	CARBON RES	IS VX
	R165	QRD161J-274	270K	1/6W	CARBON RES	IS A
	R165	QRD161J-274	270K	1/6W	CARBON RES	IS BS
	R165	QRD161J-274	270K	1/6W	CARBON RES	IS EF
	R165	QRD161J-274	270K	1/6W	CARBON RES	IS EN
	R165	QRD161J-274	270K	1/6W	CARBON RES	IS G
	R165	QRD161J-274	270K	1/6W	CARBON RES	IS GI
	R165	QRD161J-184	180K	1/6W	CARBON RES	IS U
	R165	QRD161J-184	180K	1/6W	CARBON RES	IS UC
	R165	QRD161J-184	180K	1/6W	CARBON RES	IS US
	R165	QRD161J-184	180K	1/6W	CARBON RES	IS UT
	R165	QRD161J-274	270K	1/6W	CARBON RES	IS VX
	R166	QRD161J-274	270K	1/6W	CARBON RES	IS A
	R166	QRD161J-274	270K	1/6W	CARBON RES	IS BS
	R166	QRD161J-274	270K	1/6W	CARBON RES	IS EF
	R166	QRD161J-274	270K	1/6W	CARBON RES	IS EN
	R166	QRD161J-274	270K	1/6W	CARBON RES	IS G
	R166	QRD161J-274	270K	1/6W	CARBON RES	IS GI
	R166	QRD161J-184	180K	1/6W	CARBON RES	IS U
	R166	QRD161J-184	180K	1/6W	CARBON RES	IS UC
	R166	QRD161J-184	180K	1/6W	CARBON RES	IS US
	R166	QRD161J-184	180K	1/6W	CARBON RES	IS UT
	R166	QRD161J-274	270K	1/6W	CARBON RES	IS VX
	R167	QRD167J-393	39K	1/6W	CARBON RES	IS A
	R167	QRD167J-473	47K	1/6W	CARBON RES	IS BS
	R167	QRD167J-473	47K	1/6W	CARBON RES	IS EF
	R167	QRD167J-473	47K	1/6W	CARBON RES	IS EN
	R167	QRD167J-473	47K	1/6W	CARBON RES	IS G
	R167	QRD167J-473	47K	1/6W	CARBON RES	IS GI
	R167	QRD167J-393	39K	1/6W	CARBON RES	IS U
	R167	QRD167J-393	39K	1/6W	CARBON RES	IS UC
	R167	QRD167J-393	39K	1/6W	CARBON RES	IS US
	R167	QRD167J-393	39K	1/6W	CARBON RES	IS UT
	R167	QRD167J-473	47K	1/6W	CARBON RES	IS VX
	R168	QRD167J-103	10K	1/6W	CARBON RES	IS
	R169	QRD167J-103	10K	1/6W	CARBON RES	IS
	R180	QRD167J-472	4.7K	1/6W	CARBON RES	IS
	R181	QRD167J-222	2.2K	1/6W	CARBON RES	IS
	R182	QRD161J-181	180	1/6W	CARBON RES	IS
	R190	QRD167J-472	4.7K	1/6W	CARBON RES	IS
	R191	QRD167J-562	5.6K	1/6W	CARBON RES	IS
	R194	QRD167J-103	10K	1/6W	CARBON RES	IS
	R195	QRD167J-473	47K	1/6W	CARBON RES	IS
	R196	QRD167J-103	10K	1/6W	CARBON RES	IS A
	R196	QRD167J-222	2.2K	1/6W	CARBON RES	IS BS
	R196	QRD167J-222	2.2K	1/6W	CARBON RES	IS EF
	R196	QRD167J-222	2.2K	1/6W	CARBON RES	IS EN
	R196	QRD167J-222	2.2K	1/6W	CARBON RES	IS G

⚠ : SAFETY PARTS

RESISTORS

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	R196	QRD167J-222	2.2K	1/6W	CARBON RES	IS GI
	R196	QRD167J-103	10K	1/6W	CARBON RES	IS U
	R196	QRD167J-103	10K	1/6W	CARBON RES	IS UC
	R196	QRD167J-103	10K	1/6W	CARBON RES	IS US
	R196	QRD167J-103	10K	1/6W	CARBON RES	IS UT
	R196	QRD167J-222	2.2K	1/6W	CARBON RES	IS VX
	R197	QRD167J-222	2.2K	1/6W	CARBON RES	IS
	R198	QRD167J-332	3.3K	1/6W	CARBON RES	IS A
	R198	QRD167J-822	8.2K	1/6W	CARBON RES	IS BS
	R198	QRD167J-822	8.2K	1/6W	CARBON RES	IS EF
	R198	QRD167J-822	8.2K	1/6W	CARBON RES	IS EN
	R198	QRD167J-822	8.2K	1/6W	CARBON RES	IS G
	R198	QRD167J-822	8.2K	1/6W	CARBON RES	IS GI
	R198	QRD167J-332	3.3K	1/6W	CARBON RES	IS U
	R198	QRD167J-332	3.3K	1/6W	CARBON RES	IS UC
	R198	QRD167J-332	3.3K	1/6W	CARBON RES	IS US
	R198	QRD167J-332	3.3K	1/6W	CARBON RES	IS UT
	R198	QRD167J-822	8.2K	1/6W	CARBON RES	IS VX
	R199	QRD167J-472	4.7K	1/6W	CARBON RES	IS
	R201	QRD167J-224	220K	1/6W	CARBON RES	IS
	R202	QRD167J-224	220K	1/6W	CARBON RES	IS
	R203	QVPA601-104A	100K		TRIMMER RE	SI
	R204	QVPA601-104A	100K		TRIMMER RE	SI
	R205	QVPA601-104A	100K		TRIMMER RE	SI
	R206	QVPA601-104A	100K		TRIMMER RE	SI
	R207	QRD167J-471	470	1/6W	CARBON RES	IS
	R208	QRD167J-471	470	1/6W	CARBON RES	IS
	R209	QRD161J-105	1M	1/6W	CARBON RES	IS
	R210	QRD161J-105	1M	1/6W	CARBON RES	IS
	R213	QRD167J-475	4.7M	1/6W	CARBON	
	R214	QRD167J-475	4.7M	1/6W	CARBON	
	R221	QVPA601-201A	200		TRIMMER RE	SI
	R222	QVPA601-201A	200		TRIMMER RE	SI
	R225	QRD167J-470	47	1/6W	CARBON RES	IS
	R226	QRD167J-470	47	1/6W	CARBON RES	IS
	R227	QRD167J-334	330K	1/6W	CARBON RES	IS
	R228	QRD167J-334	330K	1/6W	CARBON RES	IS
	R229	QRD161J-512	5.1K	1/6W	CARBON RES	IS
	R230	QRD161J-512	5.1K	1/6W	CARBON RES	IS
	R235	QRD167J-912	9.1K	1/6W	CARBON	
	R236	QRD167J-912	9.1K	1/6W	CARBON	
	R239	QRD167J-224	220K	1/6W	CARBON RES	IS
	R240	QRD167J-224	220K	1/6W	CARBON RES	IS
	R241	QRD167J-104	100K	1/6W	CARBON RES	IS
	R242	QRD167J-104	100K	1/6W	CARBON RES	IS
	R243	QRD167J-471	470	1/6W	CARBON RES	IS
	R244	QRD167J-102	1K	1/6W	CARBON RES	IS
	R245	QRD167J-103	10K	1/6W	CARBON RES	IS
	R255	QRD167J-102	1K	1/6W	CARBON RES	IS
	R261	QRD167J-103	10K	1/6W	CARBON RES	IS
	R262	QRD167J-472	4.7K	1/6W	CARBON RES	IS
	R271	QRD167J-103	10K	1/6W	CARBON RES	IS
	R272	QRD167J-472	4.7K	1/6W	CARBON RES	IS
	R273	QRD167J-472	4.7K	1/6W	CARBON RES	IS
	R281	QRD167J-104	100K	1/6W	CARBON RES	IS
	R282	QRD161J-105	1M	1/6W	CARBON RES	IS
	R283	QRD167J-103	10K	1/6W	CARBON RES	IS
	R284	QRD161J-105	1M	1/6W	CARBON RES	IS
	R285	QRD167J-683	68K	1/6W	CARBON RES	IS
	R286	QRD167J-104	100K	1/6W	CARBON RES	IS
	R287	QRD167J-104	100K	1/6W	CARBON RES	IS
	R288	QRD161J-622	6.2K	1/6W	CARBON RES	IS
	R291	QRD167J-104	100K	1/6W	CARBON RES	IS
	R292	QRD161J-274	270K	1/6W	CARBON RES	IS
	R293	QRD167J-562	5.6K	1/6W	CARBON RES	IS
	R294	QRD167J-102	1K	1/6W	CARBON RES	IS
	R295	QRD167J-102	1K	1/6W	CARBON RES	IS
	R296	QRD167J-102	1K	1/6W	CARBON RES	IS
	R301	QRD167J-223	22K	1/6W	CARBON RES	IS
	R302	QRD167J-223	22K	1/6W	CARBON RES	IS
	R305	QRD167J-133	13K	1/6W	CARBON RES	IS
	R306	QRD167J-133	13K	1/6W	CARBON RES	IS
	R307	QRD167J-243	24K	1/6W	CARBON RES	IS
	R308	QRD167J-243	24K	1/6W	CARBON RES	IS
	R309	QRD167J-223	22K	1/6W	CARBON RES	IS
	R310	QRD167J-223	22K	1/6W	CARBON RES	IS
	R313	QRD161J-242	2.4K	1/6W	CARBON RES	IS
	R314	QRD161J-242	2.4K	1/6W	CARBON RES	IS
	R315	QRD167J-560	56	1/6W	CARBON RES	IS
	R316	QRD167J-560	56	1/6W	CARBON RES	IS
	R317	QRD161J-681	680	1/6W	CARBON RES	IS
	R318	QRD161J-681	680	1/6W	CARBON RES	IS
	R319	QRD167J-102	1K	1/6W	CARBON RES	IS
	R320	QRD167J-102	1K	1/6W	CARBON RES	IS
	R321	QRD167J-472	4.7K	1/6W	CARBON RES	IS
	R322	QRD167J-472	4.7K	1/6W	CARBON RES	IS
	R323	QRD161J-302	3K	1/6W	CARBON RES	IS
	R324	QRD161J-302	3K	1/6W	CARBON RES	IS
	R325	QRD161J-203	20K	1/6W	CARBON RES	IS
	R326	QRD161J-203	20K	1/6W	CARBON RES	IS
	R327	QRD161J-362	3.6K	1/6W	CARBON RES	IS
	R328	QRD161J-362	3.6K	1/6W	CARBON RES	IS
	R329	QRD167J-682	6.8K	1/6W	CARBON RES	IS
	R330	QRD167J-682	6.8K	1/6W	CARBON RES	IS
	R335	QVPA601-104A	100K		TRIMMER RE	SI

⚠ : SAFETY PARTS

RESISTORS

△	ITEM	PART NUMBER	DESCRIPTION			AREA
	R336	QVPA601-104A	100K		TRIMMER RE	SI
	R337	QRD167J-473	47K	1/6W	CARBON RES	IS
	R338	QRD167J-473	47K	1/6W	CARBON RES	IS
△	R339	QRD14CJ-5R6S	5.6	1/4W	UNF.CARBON	R
	R340	QRD167J-472	4.7K	1/6W	CARBON RES	IS
	R341	QRD167J-104	100K	1/6W	CARBON RES	IS
	R342	QRD167J-332	3.3K	1/6W	CARBON RES	IS
	R343	QRD161J-910Y	91	1/6W	CARBON RES	IS
	R344	QRD161J-910Y	91	1/6W	CARBON RES	IS
△	R345	QRZ0077-100	10	1/4W	FUSIBLE RE	SI
	R346	QRD167J-103	10K	1/6W	CARBON RES	IS
	R347	QRD167J-102	1K	1/6W	CARBON RES	IS BS
	R347	QRD167J-102	1K	1/6W	CARBON RES	IS EF
	R347	QRD167J-102	1K	1/6W	CARBON RES	IS EN
	R347	QRD167J-102	1K	1/6W	CARBON RES	IS G
	R347	QRD167J-102	1K	1/6W	CARBON RES	IS GI
	R347	QRD167J-102	1K	1/6W	CARBON RES	IS VX
	R350	QRD161J-105	1M	1/6W	CARBON RES	IS
	R351	QRD167J-243	24K	1/6W	CARBON RES	IS
	R352	QRD167J-243	24K	1/6W	CARBON RES	IS
	R353	QRD167J-562	5.6K	1/6W	CARBON RES	IS
	R354	QRD167J-562	5.6K	1/6W	CARBON RES	IS
	R363	QRD167J-223	22K	1/6W	CARBON RES	IS
	R364	QRD167J-223	22K	1/6W	CARBON RES	IS
	R365	QRD161J-333	33K	1/6W	CARBON RES	IS
	R366	QRD161J-333	33K	1/6W	CARBON RES	IS
	R367	QVPA601-203A	20K		VARIABLE R	ES
	R368	QVPA601-203A	20K		VARIABLE R	ES
	R371	QRD167J-103	10K	1/6W	CARBON RES	IS
	R372	QRD167J-103	10K	1/6W	CARBON RES	IS
	R381	QRD167J-153	15K	1/6W	CARBON RES	IS
	R382	QRD167J-153	15K	1/6W	CARBON RES	IS
	R383	QRD167J-822	8.2K	1/6W	CARBON RES	IS
	R384	QRD167J-822	8.2K	1/6W	CARBON RES	IS
△	R385	QRZ0077-220	22	1/4W	FUSIBLE RE	SI
	R386	QRD161J-183	18K	1/6W	CARBON RES	IS
	R387	QRD167J-103	10K	1/6W	CARBON RES	IS
	R388	QRD167J-103	10K	1/6W	CARBON RES	IS
	R389	QVPA601-103A	10K		TRIMMER RE	SI
	R390	QVPA601-103A	10K		TRIMMER RE	SI
	R391	QRD167J-222	2.2K	1/6W	CARBON RES	IS
	R392	QRD167J-222	2.2K	1/6W	CARBON RES	IS
	R393	QRD167J-182	1.8K	1/6W	CARBON RES	IS
	R394	QRD167J-182	1.8K	1/6W	CARBON RES	IS
	R395	QRD167J-103	10K	1/6W	CARBON RES	IS
	R396	QRD167J-103	10K	1/6W	CARBON RES	IS
	R397	QRD167J-102	1K	1/6W	CARBON RES	IS
	R398	QRD167J-102	1K	1/6W	CARBON RES	IS
	R401	QRD167J-474	470K	1/6W	CARBON RES	IS
	R402	QRD167J-474	470K	1/6W	CARBON RES	IS
	R403	QRD167J-104	100K	1/6W	CARBON RES	IS
	R404	QRD167J-104	100K	1/6W	CARBON RES	IS
	R405	QRD167J-103	10K	1/6W	CARBON RES	IS
	R406	QRD167J-103	10K	1/6W	CARBON RES	IS
	R407	QRD167J-103	10K	1/6W	CARBON RES	IS
	R408	QRD167J-103	10K	1/6W	CARBON RES	IS
	R409	QRD161J-432	4.3K	1/6W	CARBON RES	IS
	R410	QRD161J-432	4.3K	1/6W	CARBON RES	IS
	R411	QRD161J-183	18K	1/6W	CARBON RES	IS
	R412	QRD161J-183	18K	1/6W	CARBON RES	IS
	R413	QRD161J-302	3K	1/6W	CARBON RES	IS
	R414	QRD161J-302	3K	1/6W	CARBON RES	IS
	R415	QRD167J-472	4.7K	1/6W	CARBON RES	IS
	R416	QRD167J-472	4.7K	1/6W	CARBON RES	IS
	R417	QRD167J-472	4.7K	1/6W	CARBON RES	IS
	R418	QRD167J-472	4.7K	1/6W	CARBON RES	IS
	R419	QRD167J-563	56K	1/6W	CARBON RES	IS
	R420	QRD167J-563	56K	1/6W	CARBON RES	IS
	R421	QRD161J-101	100	1/6W	CARBON RES	IS
	R422	QRD161J-101	100	1/6W	CARBON RES	IS
	R423	QRD167J-472	4.7K	1/6W	CARBON RES	IS
	R424	QRD167J-472	4.7K	1/6W	CARBON RES	IS
	R425	QRD167J-332	3.3K	1/6W	CARBON RES	IS
	R426	QRD167J-224	220K	1/6W	CARBON RES	IS
	R427	QRD167J-473	47K	1/6W	CARBON RES	IS
	R428	QRD167J-473	47K	1/6W	CARBON RES	IS
	R429	QRD167J-473	47K	1/6W	CARBON RES	IS
	R430	QRD167J-473	47K	1/6W	CARBON RES	IS
	R431	QRD167J-473	47K	1/6W	CARBON RES	IS
	R432	QRD167J-473	47K	1/6W	CARBON RES	IS
	R433	QRD167J-104	100K	1/6W	CARBON RES	IS
	R434	QRD167J-473	47K	1/6W	CARBON RES	IS
	R435	QRD167J-332	3.3K	1/6W	CARBON RES	IS
	R436	QRD167J-332	3.3K	1/6W	CARBON RES	IS
	R437	QRD167J-103	10K	1/6W	CARBON RES	IS
	R438	QRD167J-103	10K	1/6W	CARBON RES	IS
	R439	QRD167J-104	100K	1/6W	CARBON RES	IS
	R440	QRD167J-104	100K	1/6W	CARBON RES	IS
	R441	QRD167J-332	3.3K	1/6W	CARBON RES	IS
	R442	QRD167J-332	3.3K	1/6W	CARBON RES	IS
	R443	QRD167J-272	2.7K	1/6W	CARBON RES	IS
	R444	QRD167J-272	2.7K	1/6W	CARBON RES	IS
	R445	QRD167J-102	1K	1/6W	CARBON RES	IS
	R446	QRD167J-102	1K	1/6W	CARBON RES	IS
	R447	QRD161J-221	220	1/6W	CARBON RES	IS

△ : SAFETY PARTS

RESISTORS

△	ITEM	PART NUMBER	DESCRIPTION			AREA
	R448	QRD161J-221	220	1/6W	CARBON RES	IS
	R449	QRD167J-471	470	1/6W	CARBON RES	IS
	R450	QRD167J-471	470	1/6W	CARBON RES	IS
	R1001	QRD167J-152	1.5K	1/6W	CARBON RES	IS U
	R1001	QRD167J-152	1.5K	1/6W	CARBON RES	IS UC
	R1001	QRD167J-152	1.5K	1/6W	CARBON RES	IS US
	R1001	QRD167J-152	1.5K	1/6W	CARBON RES	IS UT
	R1002	QRD167J-123	12K	1/6W	CARBON RES	IS U
	R1002	QRD167J-123	12K	1/6W	CARBON RES	IS UC
	R1002	QRD167J-123	12K	1/6W	CARBON RES	IS US
	R1002	QRD167J-123	12K	1/6W	CARBON RES	IS UT
	R1003	QRD167J-103	10K	1/6W	CARBON RES	IS U
	R1003	QRD167J-103	10K	1/6W	CARBON RES	IS UC
	R1003	QRD167J-103	10K	1/6W	CARBON RES	IS US
	R1003	QRD167J-103	10K	1/6W	CARBON RES	IS UT
	R1004	QRD167J-103	10K	1/6W	CARBON RES	IS U
	R1004	QRD167J-103	10K	1/6W	CARBON RES	IS UC
	R1004	QRD167J-103	10K	1/6W	CARBON RES	IS US
	R1004	QRD167J-103	10K	1/6W	CARBON RES	IS UT
	R1005	QRD167J-103	10K	1/6W	CARBON RES	IS U
	R1005	QRD167J-103	10K	1/6W	CARBON RES	IS UC
	R1005	QRD167J-103	10K	1/6W	CARBON RES	IS US
	R1005	QRD167J-103	10K	1/6W	CARBON RES	IS UT
	R1010	QRD167J-472	4.7K	1/6W	CARBON RES	IS U
	R1010	QRD167J-472	4.7K	1/6W	CARBON RES	IS UC
	R1010	QRD167J-472	4.7K	1/6W	CARBON RES	IS US
	R1010	QRD167J-472	4.7K	1/6W	CARBON RES	IS UT
	R1011	QRD167J-103	10K	1/6W	CARBON RES	IS U
	R1011	QRD167J-103	10K	1/6W	CARBON RES	IS UC
	R1011	QRD167J-103	10K	1/6W	CARBON RES	IS US
	R1011	QRD167J-103	10K	1/6W	CARBON RES	IS UT
	R1012	QRD167J-103	10K	1/6W	CARBON RES	IS U
	R1012	QRD167J-103	10K	1/6W	CARBON RES	IS UC
	R1012	QRD167J-103	10K	1/6W	CARBON RES	IS US
	R1012	QRD167J-103	10K	1/6W	CARBON RES	IS UT
	R1013	QRD167J-103	10K	1/6W	CARBON RES	IS U
	R1013	QRD167J-103	10K	1/6W	CARBON RES	IS UC
	R1013	QRD167J-103	10K	1/6W	CARBON RES	IS US
	R1013	QRD167J-103	10K	1/6W	CARBON RES	IS UT
	R1014	QRD167J-471	470	1/6W	CARBON RES	IS U
	R1014	QRD167J-471	470	1/6W	CARBON RES	IS UC
	R1014	QRD167J-471	470	1/6W	CARBON RES	IS US
	R1014	QRD167J-471	470	1/6W	CARBON RES	IS UT
	R1021	QRD161J-105	1M	1/6W	CARBON RES	IS U
	R1021	QRD161J-105	1M	1/6W	CARBON RES	IS UC
	R1021	QRD161J-105	1M	1/6W	CARBON RES	IS US
	R1021	QRD161J-105	1M	1/6W	CARBON RES	IS UT
	R1022	QRD167J-682	6.8K	1/6W	CARBON RES	IS U
	R1022	QRD167J-682	6.8K	1/6W	CARBON RES	IS UC
	R1022	QRD167J-682	6.8K	1/6W	CARBON RES	IS US
	R1022	QRD167J-682	6.8K	1/6W	CARBON RES	IS UT
	R1031	QRD161J-221	220	1/6W	CARBON RES	IS U
	R1031	QRD161J-221	220	1/6W	CARBON RES	IS UC
	R1031	QRD161J-221	220	1/6W	CARBON RES	IS US
	R1031	QRD161J-221	220	1/6W	CARBON RES	IS UT
	R1035	QRD161J-303Y	30K	1/6W	CARBON RES	IS U
	R1035	QRD161J-303Y	30K	1/6W	CARBON RES	IS UC
	R1035	QRD161J-303Y	30K	1/6W	CARBON RES	IS US
	R1035	QRD161J-303Y	30K	1/6W	CARBON RES	IS UT
	R1036	QRD167J-563	56K	1/6W	CARBON RES	IS U
	R1036	QRD167J-563	56K	1/6W	CARBON RES	IS UC
	R1036	QRD167J-563	56K	1/6W	CARBON RES	IS US
	R1036	QRD167J-563	56K	1/6W	CARBON RES	IS UT
	R1037	QRD167J-243	24K	1/6W	CARBON RES	IS U
	R1037	QRD167J-243	24K	1/6W	CARBON RES	IS UC
	R1037	QRD167J-243	24K	1/6W	CARBON RES	IS US
	R1037	QRD167J-243	24K	1/6W	CARBON RES	IS UT
	R1038	QRD167J-123	12K	1/6W	CARBON RES	IS U
	R1038	QRD167J-123	12K	1/6W	CARBON RES	IS UC
	R1038	QRD167J-123	12K	1/6W	CARBON RES	IS US
	R1038	QRD167J-123	12K	1/6W	CARBON RES	IS UT

△ : SAFETY PARTS

OTHERS

△	ITEM	PART NUMBER	DESCRIPTION	AREA
	J204	EMV7125-006R	CONNECT TERMINAL (6PIN)	
	J851	EMV7122-005	MALE CONNECTOR (5PIN)	
	J998	EMV7122-004	CONNECT TERMINAL (4PIN)	U
	J998	EMV7122-004	CONNECT TERMINAL (4PIN)	UC
	J998	EMV7122-004	CONNECT TERMINAL (4PIN)	US
	J998	EMV7122-004	CONNECT TERMINAL (4PIN)	UT
	J999	EMV7122-103	CONNECT TERMINAL (3PIN)	U
	J999	EMV7122-103	CONNECT TERMINAL (3PIN)	UC
	J999	EMV7122-103	CONNECT TERMINAL (3PIN)	US
	J999	EMV7122-103	CONNECT TERMINAL (3PIN)	UT

△ : SAFETY PARTS

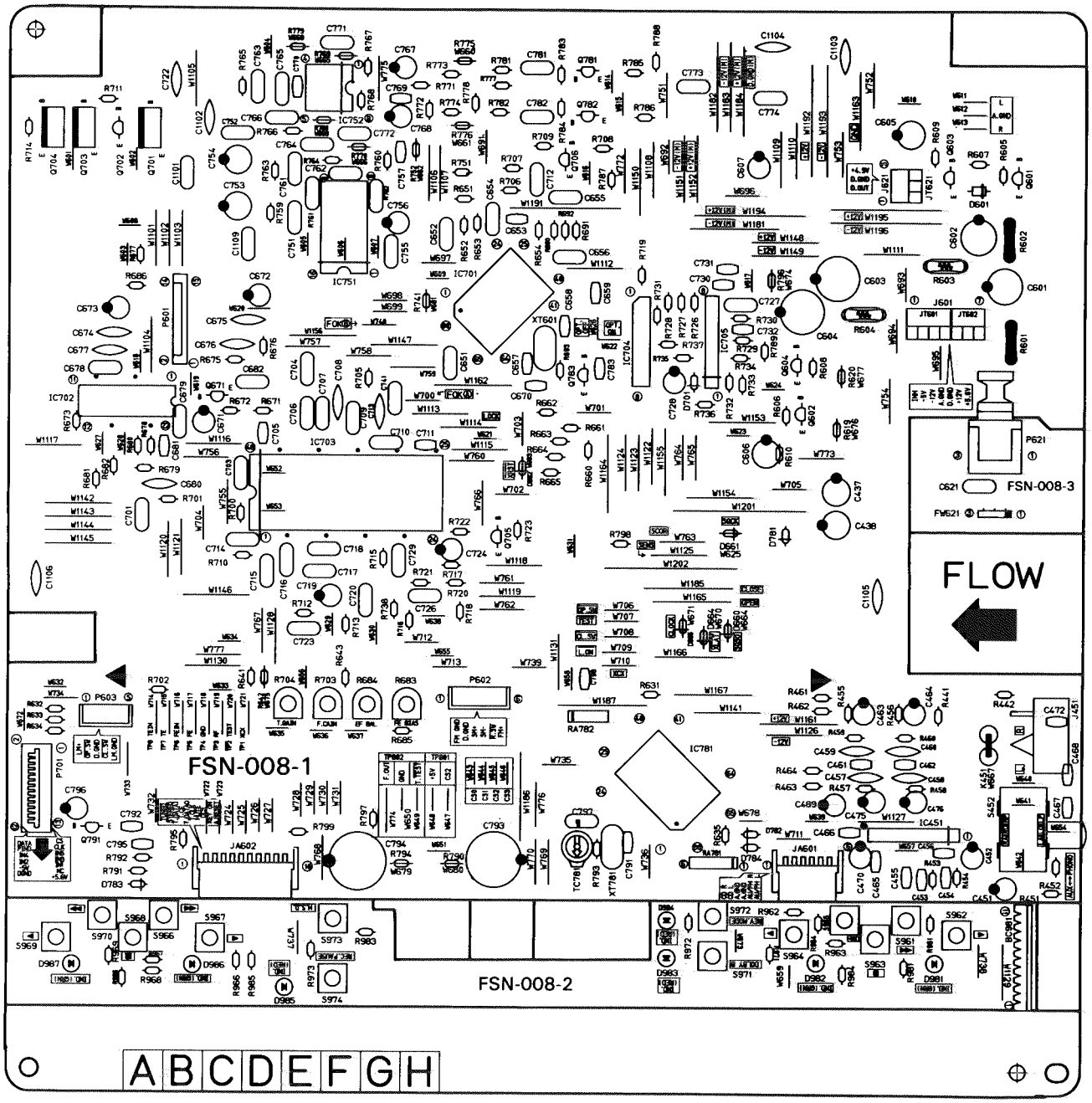
OTHERS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	L101	EQL4007-1R0T	INDUCTOR	
	L102	EQL4007-2R2T	INDUCTOR	
	L221	EQL2106-223	INDUCTOR	
	L222	EQL2106-223	INDUCTOR	
	L301	EQL2106-562	INDUCTOR	
	L302	EQL2106-562	INDUCTOR	
	L335	ENZ6002-013	OSC COIL	
	P201	EMV5133-003K	CONNECT TERMINAL(3PIN)	
	P202	EMV5133-007K	PLUG	
	S335	QSS7A12-E01	SLIDE SWITCH(7PIN)	BS
	S335	QSS7A12-E01	SLIDE SWITCH	EF
	S335	QSS7A12-E01	SLIDE SWITCH	EN
	S335	QSS7A12-E01	SLIDE SWITCH	G
	S335	QSS7A12-E01	SLIDE SWITCH	GI
	S335	QSS7A12-E01	SLIDE SWITCH	VX
	T101	EQR7121-004	RF COIL	A
	T101	EQR7121-002	RF COIL	BS
	T101	EQR7121-002	RF COIL	EF
	T101	EQR7121-002	RF COIL	EN
	T101	EQR7121-002	RF COIL	G
	T101	EQR7121-002	RF COIL	GI
	T101	EQR7121-004	RF COIL	U
	T101	EQR7121-004	RF COIL	UC
	T101	EQR7121-004	RF COIL	US
	T101	EQR7121-004	RF COIL	UT
	T101	EQR7121-002	RF COIL	VX
	T105	EQT2140-017	I.F.TRANSFORMER	
	T107	ECB1560-010	CERAMIC FILTER	
	AT101	EMB41YV-302K	ANTENNA TERMINAL	
	CF101	ECB2123-006R	CERAMIC FILTER	A
	CF101	ECB2118-007R	CERAMIC FILTER	BS
	CF101	ECB2118-007R	CERAMIC FILTER	EF
	CF101	ECB2118-007R	CERAMIC FILTER	EN
	CF101	ECB2118-007R	CERAMIC FILTER	G
	CF101	ECB2118-007R	CERAMIC FILTER	GI
	CF101	ECB2123-006R	CERAMIC FILTER	U
	CF101	ECB2123-006R	CERAMIC FILTER	UC
	CF101	ECB2123-006R	CERAMIC FILTER	US
	CF101	ECB2123-006R	CERAMIC FILTER	UT
	CF101	ECB2118-007R	CERAMIC FILTER	VX
	CF102	ECB2123-006R	CERAMIC FILTER	A
	CF102	ECB2118-007R	CERAMIC FILTER	BS
	CF102	ECB2118-007R	CERAMIC FILTER	EF
	CF102	ECB2118-007R	CERAMIC FILTER	EN
	CF102	ECB2118-007R	CERAMIC FILTER	G
	CF102	ECB2118-007R	CERAMIC FILTER	GI
	CF102	ECB2123-006R	CERAMIC FILTER	U
	CF102	ECB2123-006R	CERAMIC FILTER	UC
	CF102	ECB2123-006R	CERAMIC FILTER	US
	CF102	ECB2123-006R	CERAMIC FILTER	UT
	CF102	ECB2118-007R	CERAMIC FILTER	VX
	EP201	E70225-003SS	EARTH PLATE	
	FE101	EAF2203-004	FRONT END	A
	FE101	EAF2203-004	FRONT END	BS
	FE101	EAF2203-004	FRONT END	EF
	FE101	EAF2203-004	FRONT END	EN
	FE101	EAF2203-005	FRONT END	G
	FE101	EAF2203-005	FRONT END	GI
	FE101	EAF2203-004	FRONT END	U
	FE101	EAF2203-004	FRONT END	UC
	FE101	EAF2203-004	FRONT END	US
	FE101	EAF2203-004	FRONT END	UT
	FE101	EAF2302-002	FRONT END	VX
	JA901	VMC0163-021	CONNECT TERMINAL(21PIN)	
	JB601	VMC0193-P06	CONNECT TERMINAL(6PIN)	
	JB602	VMC0193-P10	CONNECT TERMINAL(10PIN)	
	LP102	EQF0102-001	LOWPASS FILTER	G
	LP102	EQF0102-001	LOWPASS FILTER	GI
	LP103	EQF0101-010	LOW PASS FILTER	
	LP104	EQF0101-010	LOW PASS FILTER	
	XT021	ECX0000-400KS	CERAMIC RESONATOR	U
	XT021	ECX0000-400KS	CERAMIC RESONATOR	UC
	XT021	ECX0000-400KS	CERAMIC RESONATOR	US
	XT021	ECX0000-400KS	CERAMIC RESONATOR	UT
	XT102	ECX0007-200KWJI	RESONATOR	
	XT103	ECX0000-456KR	CERAMIC RESONATOR	

⚠ : SAFETY PARTS

■FSN-008 ☐ CD & Deck Swich PC Board Ass'y

Note: FSN-008☐ varies according to the areas employed.See note (1) when placing an order.



Note (1)

PC Board Ass'y	Version	Designated Areas
FSN-008 [A]	U UC US UT	Universal Type China Singapore Taiwan
FSN-008 [B]	A	Australia
FSN-008 [C]	EN EF	Scandinavia Continental Europe
FSN-008 [D]	G	Germany
FSN-008 [E]	BS	the U.K.
FSN-008 [F]	GI	Italy
FSN-008 [G]	VX	East Europe

TRANSISTORS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q601	2SA934(Q,R)	SI.TRANSISTROHM	
	Q602	2SC3311A(Q,R)	SI.TRANSISTMATSUSHITA	
	Q603	BA1L4M	D.TR.I.M	
	Q604	BN1L4L	DIGITAL TRANEC	
	Q671	2SA934(Q,R)	SI.TRANSISTROHM	
	Q701	2SD2037(E,F)	SI.TRANSISTROHM	
	Q702	2SA934(Q,R)	SI.TRANSISTROHM	
	Q703	2SD2037(E,F)	SI.TRANSISTROHM	
	Q704	2SB1357(E,F)	SI.TRANSISTROHM	
	Q705	BA1L4M	D.TR.I.M	
	Q706	2SC3311A(Q,R)	SI.TRANSISTMATSUSHITA	
	Q781	2SC3311A(Q,R)	SI.TRANSISTMATSUSHITA	
	Q782	2SC3311A(Q,R)	SI.TRANSISTMATSUSHITA	
	Q783	BN1L4M	DIGITAL TRA	
	Q791	BA1A4P	DIGITAL TRANEC	

⚠ : SAFETY PARTS

I. C. S.

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC451	NJM4580LD	I.C(MONO-ANDAINICHI	
	IC701	CXD2500BQ	I.C(DIGI-MO	
	IC702	CXA1571S	I.C(MONO-AN	
	IC703	CXA1372S	I.C(MONO-AN	
	IC704	STA341M(A)	TRANSISTOR	
	IC705	NJM4580L-S	I.C(MONO-AN0050	
	IC751	UPD6376CX	I.C(DIGI-MONEC	
	IC752	NJM4580D	I.C.	
	IC781	HD404710A36FS	I.C(MICRO-CHITACHI	

⚠ :SAFETY PARTS

DIODES

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	D601	1SR139-200	SI.DIODE ROHM	
	D701	1SS119	SI.DIODE	
	D782	1SS119	SI.DIODE	
	D783	1SS119	SI.DIODE	
	D784	1SS119	SI.DIODE	
	D981	SLR-342MCA47	L.E.D. ROHM	
	D982	SLR-342MCA47	L.E.D. ROHM	
	D983	SLR-342VC3F	L.E.D. ROHM	
	D984	SLR-342VC3F	L.E.D. ROHM	
	D985	SLR-342VC3F	L.E.D. ROHM	
	D986	SLR-342MCA47	L.E.D. ROHM	
	D987	SLR-342MCA47	L.E.D. ROHM	

⚠ :SAFETY PARTS

CAPACITORS

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	C451	QETB1HM-475	4.7MF	50V	ELECTRO	
	C452	QETB1HM-475	4.7MF	50V	ELECTRO	
	C453	QCBB1HK-471Y	470PF	50V	CER.CAPACI	TO
	C454	QCBB1HK-471Y	470PF	50V	CER.CAPACI	TO
	C455	QCBB1HK-101Y	100PF	50V	CER.CAPACI	TO
	C456	QCBB1HK-101Y	100PF	50V	CER.CAPACI	TO
	C457	QCY31HK-682Z	6800PF	50V	CER.CAPACI	TO
	C458	QCY31HK-682Z	6800PF	50V	CER.CAPACI	TO
	C459	QCY31HK-182Z	1800PF	50V	CER.CAPACI	TO
	C460	QCY31HK-182Z	1800PF	50V	CER.CAPACI	TO
	C461	QCBB1HK-101Y	100PF	50V	CER.CAPACI	TO
	C462	QCBB1HK-101Y	100PF	50V	CER.CAPACI	TO
	C463	QETB1HM-475	4.7MF	50V	ELECTRO	
	C464	QETB1HM-475	4.7MF	50V	ELECTRO	
	C467	QCBB1HK-331Y	330PF	50V	CER.CAPACI	TO
	C468	QCBB1HK-331Y	330PF	50V	CER.CAPACI	TO
	C469	QETB1EM-476	47MF	25V	AL E.CAPAC	IT
	C470	QETB1EM-476	47MF	25V	AL E.CAPAC	IT
	C475	QETB1EM-476	47MF	25V	AL E.CAPAC	IT
	C476	QETB1EM-476	47MF	25V	AL E.CAPAC	IT
	C601	QETB1CM-227	220MF	16V	AL E.CAPAC	IT
	C602	QETB1CM-227	220MF	16V	AL E.CAPAC	IT
	C603	QETB1CM-108	1000MF	16V	AL E.CAPAC	IT
	C604	QETB1CM-108	1000MF	16V	AL E.CAPAC	IT
	C605	QETBOJM-227	220MF	6.3V	E.CAPACITO	R
	C606	QETBOJM-107	100MF	6.3V	AL E.CAPAC	IT
	C607	QETB1HM-105	1MF	50V	AL E.CAPAC	IT
	C651	QCZ0202-155	1.5MF	25V	CER.RESIST	OR
	C652	QFLB1HJ-473	0.047MF	50V	MYLAR CAPA	CI
	C653	QCHB1EZ-223	0.022MF	25V	CER.CAPACI	TO
	C654	QFLB1HJ-152	1500PF	50V	MYLAR CAPA	CI
	C655	QFLB1HJ-102	1000PF	50V	MYLAR CAPA	CI
	C656	QCZ0202-155	1.5MF	25V	CER.RESIST	OR
	C657	QCT30CH-100	10PF	50V	CERAMIC	
	C658	QCT30CH-100	10PF	50V	CERAMIC	
	C671	QETB1AM-107	100MF	10V	AL E.CAPAC	IT
	C673	QETB1AM-476	47MF	10V	E.CAPACITO	R
	C674	QCS21HJ-100	10PF	50V	CER.CAPACI	TO
	C675	QCS21HJ-820	82PF	50V	CER.CAPACI	TO
	C676	QCS21HJ-101A	100PF	50V	CER.CAPACI	TO
	C677	QCS21HJ-100	10PF	50V	CER.CAPACI	TO
	C678	QCZ0202-155	1.5MF	25V	CER.RESIST	OR
	C679	QCZ0202-155	1.5MF	25V	CER.RESIST	OR
	C680	QCS21HJ-220	22PF	50V	CER.CAPACI	TO
	C681	QCHB1EZ-223	0.022MF	25V	CER.CAPACI	TO
	C701	QFLB1HJ-122	1200PF	50V	MYLAR CAPA	CI
	C703	QFLB1HJ-222	2200PF	50V	MYLAR CAPA	CI
	C704	QFLB1HJ-222	2200PF	50V	MYLAR CAPA	CI
	C705	QCHB1EZ-223	0.022MF	25V	CER.CAPACI	TO
	C706	QFLB1HJ-333	0.033MF	50V	MYLAR CAPA	CI
	C707	QFLB1HJ-103	0.01MF	50V	MYLAR CAPA	CI
	C708	QCF21HP-223A	0.022MF	50V	CER.CAPACI	TO
	C709	QFLB1HJ-333	0.033MF	50V	MYLAR CAPA	CI
	C710	QCZ0202-155	1.5MF	25V	CER.RESIST	OR
	C711	QCHB1EZ-223	0.022MF	25V	CER.CAPACI	TO

⚠ :SAFETY PARTS

CAPACITORS

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	C712	QFLB1HJ-104	0.1MF	50V	MYLAR CAPA	CI
	C713	QCS21HJ-471	470PF	50V	CERAMIC	
	C714	QFLB1HJ-104	0.1MF	50V	MYLAR CAPA	CI
	C715	QFLB1HJ-333	0.033MF	50V	MYLAR CAPA	CI
	C716	QFLB1HJ-473	0.047MF	50V	MYLAR CAPA	CI
	C717	QFLB1HJ-473	0.047MF	50V	MYLAR CAPA	CI
	C718	QFLB1HJ-473	0.047MF	50V	MYLAR CAPA	CI
	C719	QETB1HM-106	10MF	50V	E.CAPACITO	R
	C720	QFLB1HJ-104	0.1MF	50V	MYLAR CAPA	CI
	C722	QCF21HP-223A	0.022MF	50V	CER.CAPACI	TO
	C723	QFLB1HJ-333	0.033MF	50V	MYLAR CAPA	CI
	C724	QETB1HM-106	10MF	50V	E.CAPACITO	R
	C726	QFLB1HJ-223	0.022MF	50V	MYLAR CAPA	CI
	C727	QFLB1HJ-103	0.01MF	50V	MYLAR CAPA	CI
	C728	QETB1HM-475	4.7MF	50V	ELECTRO	
	C729	QFLB1HJ-393	0.039MF	50V	MYLAR CAPA	CI
	C730	QCHB1EZ-223	0.022MF	25V	CER.CAPACI	TO
	C731	QCHB1EZ-223	0.022MF	25V	CER.CAPACI	TO
	C732	QCBB1HK-681Y	680PF	50V	CER.CAPACI	TO
	C741	QFLB1HJ-153	0.015MF	50V	MYLAR CAPA	CI
	C751	QFLB1HJ-104	0.1MF	50V	MYLAR CAPA	CI
	C752	QFLB1HJ-104	0.1MF	50V	MYLAR CAPA	CI
	C753	QETB1EM-107	100MF	25V	AL E.CAPAC	IT
	C754	QETB1EM-107	100MF	25V	AL E.CAPAC	IT
	C755	QCZ0202-155	1.5MF	25V	CER.RESIST	OR
	C756	QETB1HM-476	47MF	50V	E.CAPACITO	R
	C757	QCHB1EZ-223	0.022MF	25V	CER.CAPACI	TO
	C761	QFLB1HJ-562	5600PF	50V	MYLAR CAPA	CI
	C762	QFLB1HJ-562	5600PF	50V	MYLAR CAPA	CI
	C763	QFLB1HJ-153	0.015MF	50V	MYLAR CAPA	CI
	C764	QFLB1HJ-153	0.015MF	50V	MYLAR CAPA	CI
	C765	QFLB1HJ-821	820PF	50V	MYLAR CAPA	CI
	C766	QFLB1HJ-821	820PF	50V	MYLAR CAPA	CI
	C767	QETB1HM-476	47MF	50V	E.CAPACITO	R
	C768	QETB1HM-476	47MF	50V	E.CAPACITO	R
	C769	QCHB1EZ-223	0.022MF	25V	CER.CAPACI	TO
	C770	QCHB1EZ-223	0.022MF	25V	CER.CAPACI	TO
	C771	QFLB1HJ-104	0.1MF	50V	MYLAR CAPA	CI
	C772	QFLB1HJ-104	0.1MF	50V	MYLAR CAPA	CI
	C781	QFLB1HJ-683	0.068MF	50V	MYLAR CAPA	CI
	C782	QFLB1HJ-683	0.068MF	50V	MYLAR CAPA	CI
	C783	QCVB1CM-103Y	0.01MF	16V	CER.CAPACI	TO
	C791	QCT30CH-150	15PF	50V	CERAMIC	
	C792	QCVB1CM-103Y	0.01MF	16V	CER.CAPACI	TO
	C793	QEA40HZ-10AB			E.CAPACITO	R
	C795	QCVB1CM-103Y	0.01MF	16V	CER.CAPACI	TO
	C796	QETB1HM-475	4.7MF	50V	ELECTRO	
	C797	QCZ0202-155	1.5MF	25V	CER.RESIST	OR
	C798	QCVB1CM-103Y	0.01MF	16V	CER.CAPACI	TO
	C1101	QCZ0202-155	1.5MF	25V	CER.RESIST	OR

⚠ :SAFETY PARTS

RESISTORS

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	R451	QRD167J-222	2.2K	1/6W	CARBON RES	IS
	R452	QRD167J-222	2.2K	1/6W	CARBON RES	IS
	R453	QRD167J-473	47K	1/6W	CARBON RES	IS
	R454	QRD167J-473	47K	1/6W	CARBON RES	IS
	R455	QRD167J-471	470	1/6W	CARBON RES	IS
	R456	QRD167J-471	470	1/6W	CARBON RES	IS
	R457	QRD167J-474	470K	1/6W	CARBON RES	IS
	R458	QRD167J-474	470K	1/6W	CARBON RES	IS
	R459	QRD167J-393	39K	1/6W	CARBON RES	IS
	R460	QRD167J-393	39K	1/6W	CARBON RES	IS
	R461	QRD167J-152	1.5K	1/6W	CARBON RES	IS
	R462	QRD167J-152	1.5K	1/6W	CARBON RES	IS
	R463	QRD161J-302	3K	1/6W	CARBON RES	IS
	R464	QRD161J-302	3K	1/6W	CARBON RES	IS
⚠	R601	QRZ0077-100	10	1/4W	FUSIBLE RE	SI
⚠	R602	QRZ0077-100	10	1/4W	FUSIBLE RE	SI
⚠	R603	QRD14CJ-4R7S	4.7	1/4W	UNF.CARBON	R
⚠	R604	QRD14CJ-4R7S	4.7	1/4W	UNF.CARBON	R
	R605	QRD167J-472	4.7K	1/6W	CARBON RES	IS
	R606	QRD167J-472	4.7K	1/6W	CARBON RES	IS
	R607	QRD167J-471	470	1/6W	CARBON RES	IS
	R608	QRD167J-182	1.8K	1/6W	CARBON RES	IS
	R609	QRD167J-103	10K	1/6W	CARBON RES	IS
	R610	QRD167J-472	4.7K	1/6W	CARBON RES	IS
	R631	QRD167J-103	10K	1/6W	CARBON RES	IS
	R632	QRD167J-103	10K	1/6W	CARBON RES	IS
	R633	QRD167J-103	10K	1/6W	CARBON RES	IS
	R635	QRD167J-103	10K	1/6W	CARBON RES	IS
	R641	QRD167J-103	10K	1/6W	CARBON RES	IS
	R642	QRD167J-822	8.2K	1/6W	CARBON RES	IS

⚠ :SAFETY PARTS

RESISTORS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	R643	QRD167J-123	12K 1/6W CARBON RES	IS
	R651	QRD167J-332	3.3K 1/6W CARBON RES	IS
	R652	QRD167J-682	6.8K 1/6W CARBON RES	IS
	R653	QRD167J-103	10K 1/6W CARBON RES	IS
	R654	QRD167J-103	10K 1/6W CARBON RES	IS
	R671	QRD167J-100	10 1/6W CARBON	
	R672	QRD161J-120	12 1/6W CARBON RES	IS
	R673	QRD167J-102	1K 1/6W CARBON RES	IS
	R675	QRD161J-183	18K 1/6W CARBON RES	IS
	R676	QRD161J-183	18K 1/6W CARBON RES	IS
	R677	QRD167J-121	120 1/6W CARBON RES	IS
	R678	QRD167J-103	10K 1/6W CARBON RES	IS
	R679	QRD167J-332	3.3K 1/6W CARBON RES	IS
	R680	QRD167J-822	8.2K 1/6W CARBON RES	IS
	R681	QRD167J-103	10K 1/6W CARBON RES	IS
	R684	QVPA601-203A	20K VARIABLE R	ES
	R685	QRD167J-103	10K 1/6W CARBON RES	IS
	R686	QRD161J-910Y	91 1/6W CARBON RES	IS
	R690	QRD167J-102	1K 1/6W CARBON RES	IS
	R691	QRD167J-102	1K 1/6W CARBON RES	IS
	R692	QRD167J-102	1K 1/6W CARBON RES	IS
	R700	QRD167J-275	2.7M 1/6W CARBON RES	IS
	R701	QRD167J-153	15K 1/6W CARBON RES	IS
	R704	QVPA601-203A	20K VARIABLE R	ES
	R705	QRD167J-102	1K 1/6W CARBON RES	IS
	R706	QRD167J-104	100K 1/6W CARBON RES	IS
	R707	QRD167J-103	10K 1/6W CARBON RES	IS
	R708	QRD161J-273	27K 1/6W CARBON RES	IS
	R709	QRD161J-273	27K 1/6W CARBON RES	IS
	R710	QRD167J-224	220K 1/6W CARBON RES	IS
	R711	QRD167J-2R2	2.2 1/6W CARBON RES	IS
	R712	QRD161J-164YT	160K 1/6W CARBON RES	IS
	R713	QRD167J-134	130K 1/6W CARBON RES	IS
	R714	QRD167J-2R2	2.2 1/6W CARBON RES	IS
	R715	QRD167J-224	220K 1/6W CARBON RES	IS
	R716	QRD161J-333	33K 1/6W CARBON RES	IS
	R717	QRD167J-103	10K 1/6W CARBON RES	IS
	R718	QRD161J-514	510K 1/6W CARBON RES	IS
	R719	QRD167J-2R2	2.2 1/6W CARBON RES	IS
	R720	QRD167J-123	12K 1/6W CARBON RES	IS
	R721	QRD161J-333	33K 1/6W CARBON RES	IS
	R722	QRD161J-124	120K 1/6W CARBON RES	IS
	R723	QRD167J-472	4.7K 1/6W CARBON RES	IS
	R726	QRD161J-203	20K 1/6W CARBON RES	IS
	R727	QRD161J-273	27K 1/6W CARBON RES	IS
	R728	QRD161J-752	7.5K 1/6W CARBON RES	IS
	R729	QRD161J-752	7.5K 1/6W CARBON RES	IS
	R730	QRD161J-333	33K 1/6W CARBON RES	IS
	R731	QRD167J-2R2	2.2 1/6W CARBON RES	IS
	R732	QRD161J-513	51K 1/6W CARBON RES	IS
	R733	QRD161J-513	51K 1/6W CARBON RES	IS
	R734	QRD167J-683	68K 1/6W CARBON RES	IS
	R735	QRD167J-683	68K 1/6W CARBON RES	IS
	R736	QRD161J-684	680K 1/6W CARBON RES	IS
	R737	QRD161J-221	220 1/6W CARBON RES	IS
	R738	QRD167J-823	82K 1/6W CARBON RES	IS
	R741	QRD167J-473	47K 1/6W CARBON RES	IS
	R751	QRD167J-100	10 1/6W CARBON	
	R759	QRD167J-103	10K 1/6W CARBON RES	IS
	R760	QRD167J-103	10K 1/6W CARBON RES	IS
	R761	QRD167J-102	1K 1/6W CARBON RES	IS
	R762	QRD167J-102	1K 1/6W CARBON RES	IS
	R763	QRD161J-122	1.2K 1/6W CARBON RES	IS
	R764	QRD161J-122	1.2K 1/6W CARBON RES	IS
	R765	QRD167J-182	1.8K 1/6W CARBON RES	IS
	R766	QRD167J-182	1.8K 1/6W CARBON RES	IS
	R767	QRD161J-333	33K 1/6W CARBON RES	IS
	R768	QRD161J-333	33K 1/6W CARBON RES	IS
	R769	QRD161J-273	27K 1/6W CARBON RES	IS
	R770	QRD161J-273	27K 1/6W CARBON RES	IS
	R771	QRD161J-273	27K 1/6W CARBON RES	IS
	R772	QRD161J-273	27K 1/6W CARBON RES	IS
	R773	QRD161J-561	560 1/6W CARBON RES	IS
	R774	QRD161J-561	560 1/6W CARBON RES	IS
	R781	QRD161J-221	220 1/6W CARBON RES	IS
	R782	QRD161J-221	220 1/6W CARBON RES	IS
	R783	QRD167J-104	100K 1/6W CARBON RES	IS
	R784	QRD167J-104	100K 1/6W CARBON RES	IS
	R785	QRD167J-392	3.9K 1/6W CARBON RES	IS
	R786	QRD167J-392	3.9K 1/6W CARBON RES	IS
	R787	QRD161J-684	680K 1/6W CARBON RES	IS
	R788	QRD167J-154	150K 1/6W CARBON RES	IS
	R790	QRD167J-470	47 1/6W CARBON RES	IS
	R791	QRD167J-104	100K 1/6W CARBON RES	IS
	R792	QRD167J-223	22K 1/6W CARBON RES	IS
	R793	QRD167J-473	47K 1/6W CARBON RES	IS
	R795	QRD167J-102	1K 1/6W CARBON RES	IS
	R796	QRD167J-223	22K 1/6W CARBON RES	IS
	R798	QRD167J-103	10K 1/6W CARBON RES	IS
	R961	QRD167J-431	430 1/6W CARBON RES	IS
	R962	QRD161J-681	680 1/6W CARBON RES	IS
	R963	QRD161J-112	1.1K 1/6W CARBON RES	IS
	R964	QRD167J-222	2.2K 1/6W CARBON RES	IS
	R966	QRD167J-431	430 1/6W CARBON RES	IS
	R967	QRD161J-681	680 1/6W CARBON RES	IS

⚠ : SAFETY PARTS

RESISTORS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	R968	QRD161J-112	1.1K 1/6W CARBON RES	IS
	R969	QRD167J-222	2.2K 1/6W CARBON RES	IS
	R971	QRD167J-431	430 1/6W CARBON RES	IS
	R972	QRD161J-681	680 1/6W CARBON RES	IS
	R973	QRD161J-112	1.1K 1/6W CARBON RES	IS
	R981	QRD167J-151	150 1/6W CARBON RES	IS
	R983	QRD167J-271	270 1/6W CARBON RES	IS
	R984	QRD167J-271	270 1/6W CARBON RES	IS
	R985	QRD167J-391	390 1/6W CARBON RES	IS
	R986	QRD161J-221	220 1/6W CARBON RES	IS
	RA781	QRB059J-222	2.2K 1/10W NETWORK RE	SI
	RA782	QRB059J-472	4.7K 1/10W NETWORK RE	SI

⚠ : SAFETY PARTS

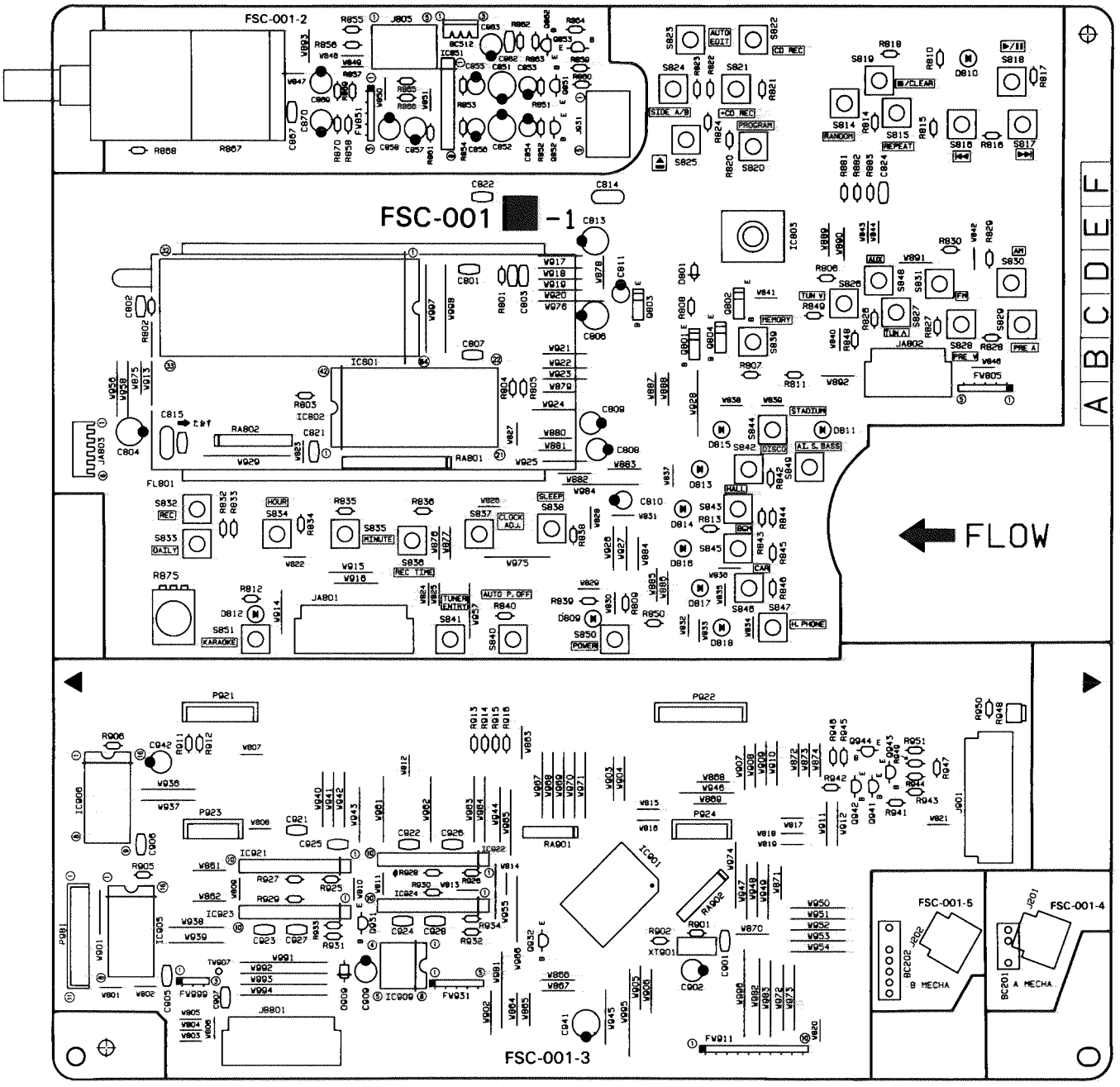
OTHERS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	J451	EMN00TV-209A	PIN JACK	
	P601	EMV7144-015	F.P.C.PLUG (15PIN)	
	P602	EMV5109-006A	CONNECT TERMINAL (6PIN)	
	P603	EMV5109-005A	MALE CONNECTOR (5PIN)	
	P701	VMC0163-013	CONNECT TERMINAL (13PIN)	
	S452	QSS2201-010	SLIDE SWITCH (INPUT SELECT)	
	S961	ESP0001-023ZJ5	TACT SWITCH (A ◀◀)	
	S962	ESP0001-023ZJ5	TACT SWITCH (A ◀)	
	S963	ESP0001-023ZJ5	TACT SWITCH (A STOP)	
	S964	ESP0001-023ZJ5	TACT SWITCH (A ▶)	
	S965	ESP0001-023ZJ5	TACT SWITCH (A ▶▶)	
	S966	ESP0001-023ZJ5	TACT SWITCH (B ◀◀)	
	S967	ESP0001-023ZJ5	TACT SWITCH (B ◀)	
	S968	ESP0001-023ZJ5	TACT SWITCH (B STOP)	
	S969	ESP0001-023ZJ5	TACT SWITCH (B ▶)	
	S970	ESP0001-023ZJ5	TACT SWITCH (B ▶▶)	
	S971	ESP0001-023ZJ5	TACT SWITCH (DOLY B)	
	S972	ESP0001-023ZJ5	TACT SWITCH (REV.MODE)	
	S973	ESP0001-023ZJ5	TACT SWITCH (H.S.D)	
	S974	ESP0001-023ZJ5	TACT SWITCH (REC.P)	
	BC981	EWS32B-A920	CONNECTOR WIRE ASSY (11PIN)	
	JA601	VMC0193-S06	CONNECT TERMINAL (6PIN)	
	JA602	VMC0193-S10	CONNECT TERMINAL (10PIN)	
	JT601	EMV7122-004	CONNECT TERMINAL (4PIN)	
	JT602	EMV7122-103	CONNECT TERMINAL (3PIN)	
	TC781	ENZ1003-015	TRIMMER CAPACITOR	
	XT601	ECX0169-344EA	CRYSTAL	
	XT781	ECX4194-304CF	CRYSTAL	

⚠ : SAFETY PARTS

■FSC-001 ☐ Front, Controller & Tuner PC Board Ass'y

Note: FSC-001 ☐ varies according to the areas employed.See note (1) when placing an order.



Note (1)

PC Board Ass'y	Version	Designated Areas
FSC-001 [A]	U UC US UT	Universal Type China Singapore Taiwan
FSC-001 [B]	A	Australia
FSC-001 [C]	EN EF	Scandinavia Continental Europe
FSC-001 [D]	G	Germany
FSC-001 [E]	BS	the U.K.
FSC-001 [F]	GI	Italy
FSC-001 [G]	VX	East Europe

TRANSISTORS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q801	DTC144EFF	DIGITAL TRAROHM	
	Q802	DTC144EFF	DIGITAL TRAROHM	
	Q803	DTA114YFF	DIGITAL TRAROHM	
	Q804	DTC144EFF	DIGITAL TRAROHM	
	Q851	2SD2144S(VW)	SI.TRANSISTROHM	
	Q852	2SD2144S(VW)	SI.TRANSISTROHM	
	Q853	BA1L4M-T	D.TR.I.M	
	Q862	2SC3311A(Q,R)	SI.TRANSISTMATSUSHITA	
	Q931	BA1L4M	D.TR.I.M	
	Q932	BA1L4M	D.TR.I.M	
	Q941	2SC3311A(Q,R)	SI.TRANSISTMATSUSHITA	
	Q942	2SC3311A(Q,R)	SI.TRANSISTMATSUSHITA	
	Q943	2SA1175(HFE)	SI.TRANSIST	
	Q944	2SA1175(HFE)	SI.TRANSIST	

⚠ : SAFETY PARTS

I. C. S.

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC801	M66004SP	I.C(M) MITSUBISHI	
	IC802	XR1095CP	I.C(MONO-ANEXAR JAPAN	
	IC803	NJH32H380A	I.C(M) DAINICHI	
	IC851	NJM4580L-S	I.C(MONO-AN0050	
	IC901	HD404719A38FS	I.C(MICRO-CHITACHI	
	IC905	TC74HC595AP	I.C(DIGI-MOTOSHIBA	
	IC906	TC74HC595AP	I.C(DIGI-MOTOSHIBA	U
	IC906	TC74HC595AP	I.C(DIGI-MOTOSHIBA	UC
	IC906	TC74HC595AP	I.C(DIGI-MOTOSHIBA	US
	IC906	TC74HC595AP	I.C(DIGI-MOTOSHIBA	UT
	IC909	LB1639-CV	I.C(DIGI-OTSANYO	
	IC921	LB1641	I.C(DIGI-OTSANYO	
	IC922	LB1641	I.C(DIGI-OTSANYO	
	IC923	LB1641	I.C(DIGI-OTSANYO	
	IC924	LB1641	I.C(DIGI-OTSANYO	

⚠ : SAFETY PARTS

DIODES

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	D801	1SS119	SI.DIODE ﾍﾝｶﾝ	
	D809	SLR-342VC3F	L.E.D. ROHM	A
	D809	SLA-380LT	L.E.D. ROHM	BS
	D809	SLR-342VC3F	L.E.D. ROHM	EF
	D809	SLR-342VC3F	L.E.D. ROHM	EN
	D809	SLR-342VC3F	L.E.D. ROHM	G
	D809	SLR-342VC3F	L.E.D. ROHM	GI
	D809	SLR-342VC3F	L.E.D. ROHM	U
	D809	SLR-342VC3F	L.E.D. ROHM	UC
	D809	SLR-342VC3F	L.E.D. ROHM	US
	D809	SLR-342VC3F	L.E.D. ROHM	UT
	D809	SLR-342VC3F	L.E.D. ROHM	VX
	D810	SLR-342MCA47	L.E.D. ROHM	
	D811	SLR-342VC3F	L.E.D. ROHM	
	D812	SLR-342MCA47	L.E.D. ROHM	
	D813	SLR-342MCA47	L.E.D. ROHM	
	D814	SLR-342MCA47	L.E.D. ROHM	
	D815	SLR-342MCA47	L.E.D. ROHM	
	D816	SLR-342MCA47	L.E.D. ROHM	
	D817	SLR-342MCA47	L.E.D. ROHM	
	D818	SLR-342MCA47	L.E.D. ROHM	
	D909	1SR139-200	SI.DIODE ROHM	

⚠ : SAFETY PARTS

CAPACITORS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	C801	QCZ0205-155	1.5MF 25V C.CAPACITO	R
	C802	QCBB1HK-101Y	100PF 50V CER.CAPACI	TO
	C803	QCBB1HK-561Y	560PF 50V CER.CAPACI	TO
	C804	QEK51EM-106	10MF 25V AL E.CAPAC	IT
	C806	QEK51HM-106	10MF 50V AL E.CAPAC	IT
	C807	QCXB1CM-152	1500PF 16V CERAMIC	
	C808	QEK51HM-225G	2.2MF 50V AL E.CAPAC	IT
	C809	QEK51HM-225G	2.2MF 50V AL E.CAPAC	IT
	C810	QER50JM-476	47MF 6.3V AL E.CAPAC	IT
	C811	QEK51CM-106G	10MF 16V AL E.CAPAC	IT
	C813	QER50JM-107	100MF 6.3V AL E.CAPAC	IT
	C814	QCZ0205-155	1.5MF 25V C.CAPACITO	R
	C815	QFV81HJ-104	0.1MF 50V THIN FILM	CA
	C821	QCBB1HK-101Y	100PF 50V CER.CAPACI	TO
	C822	QCBB1HK-101Y	100PF 50V CER.CAPACI	TO
	C851	QER51CM-476	47MF 16V AL E.CAPAC	IT
	C852	QER51CM-476	47MF 16V AL E.CAPAC	IT
	C853	QER51HM-104G	0.1MF 50V AL E.CAPAC	IT
	C854	QER51HM-104G	0.1MF 50V AL E.CAPAC	IT
	C855	QER51HM-474G	0.47MF 50V AL E.CAPAC	IT
	C856	QER51HM-474G	0.47MF 50V AL E.CAPAC	IT
	C857	QER51EM-106	10MF 25V E.CAPACITO	R
	C858	QER51EM-106	10MF 25V E.CAPACITO	R
	C862	QCHB1EZ-223	0.022MF 25V CER.CAPACI	TO
	C863	QER51HM-475	4.7MF 50V AL E.CAPAC	IT
	C867	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	TO
	C869	QER51HM-475	4.7MF 50V AL E.CAPAC	IT
	C870	QER51HM-475	4.7MF 50V AL E.CAPAC	IT
	C901	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	TO
	C902	QETB1AM-107	100MF 10V AL E.CAPAC	IT
	C905	QCBB1HK-561Y	560PF 50V CER.CAPACI	TO
	C907	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	TO U
	C907	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	TO UC
	C907	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	TO US
	C907	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	TO UT
	C909	QETB1AM-476	47MF 10V E.CAPACITO	R
	C921	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	TO
	C922	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	TO
	C923	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	TO
	C924	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	TO

⚠ : SAFETY PARTS

CAPACITORS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	C925	QCHB1EZ-223	0.022MF 25V CER.CAPACI	TO
	C926	QCHB1EZ-223	0.022MF 25V CER.CAPACI	TO
	C927	QCHB1EZ-223	0.022MF 25V CER.CAPACI	TO
	C928	QCHB1EZ-223	0.022MF 25V CER.CAPACI	TO
	C941	QETB1CM-107	100MF 16V AL E.CAPAC	IT
	C942	QETB1EM-106	10MF 25V AL E.CAPAC	IT

⚠ : SAFETY PARTS

RESISTORS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	R801	QRD167J-822	8.2K 1/6W CARBON RES	IS
	R802	QRD161J-273	27K 1/6W CARBON RES	IS
	R803	QRD167J-102	1K 1/6W CARBON RES	IS
	R804	QRD161J-105	1M 1/6W CARBON RES	IS
	R805	QRD161J-105	1M 1/6W CARBON RES	IS
	R806	QRD167J-154	150K 1/6W CARBON RES	IS
	R807	QRD167J-222	2.2K 1/6W CARBON RES	IS
	R808	QRD167J-472	4.7K 1/6W CARBON RES	IS
	R809	QRD161J-331	330 1/6W CARBON RES	IS A
	R809	QRD167J-271	270 1/6W CARBON RES	IS BS
	R809	QRD161J-331	330 1/6W CARBON RES	IS EF
	R809	QRD161J-331	330 1/6W CARBON RES	IS EN
	R809	QRD161J-331	330 1/6W CARBON RES	IS G
	R809	QRD161J-331	330 1/6W CARBON RES	IS GI
	R809	QRD161J-331	330 1/6W CARBON RES	IS U
	R809	QRD161J-331	330 1/6W CARBON RES	IS UC
	R809	QRD161J-331	330 1/6W CARBON RES	IS US
	R809	QRD161J-331	330 1/6W CARBON RES	IS UT
	R809	QRD161J-331	330 1/6W CARBON RES	IS VX
	R810	QRD161J-331	330 1/6W CARBON RES	IS
	R811	QRD161J-331	330 1/6W CARBON RES	IS
	R812	QRD161J-181	180 1/6W CARBON RES	IS
	R813	QRD161J-181	180 1/6W CARBON RES	IS
	R814	QRD167J-682	6.8K 1/6W CARBON RES	IS
	R815	QRD167J-222	2.2K 1/6W CARBON RES	IS
	R816	QRD161J-112	1.1K 1/6W CARBON RES	IS
	R817	QRD161J-681	680 1/6W CARBON RES	IS
	R818	QRD167J-431	430 1/6W CARBON RES	IS
	R820	QRD167J-682	6.8K 1/6W CARBON RES	IS
	R821	QRD167J-222	2.2K 1/6W CARBON RES	IS
	R822	QRD161J-112	1.1K 1/6W CARBON RES	IS
	R823	QRD161J-681	680 1/6W CARBON RES	IS
	R824	QRD167J-431	430 1/6W CARBON RES	IS
	R826	QRD167J-682	6.8K 1/6W CARBON RES	IS
	R827	QRD167J-222	2.2K 1/6W CARBON RES	IS
	R828	QRD161J-112	1.1K 1/6W CARBON RES	IS
	R829	QRD161J-681	680 1/6W CARBON RES	IS
	R830	QRD167J-431	430 1/6W CARBON RES	IS
	R832	QRD167J-682	6.8K 1/6W CARBON RES	IS
	R833	QRD167J-222	2.2K 1/6W CARBON RES	IS
	R834	QRD161J-112	1.1K 1/6W CARBON RES	IS
	R835	QRD161J-681	680 1/6W CARBON RES	IS
	R836	QRD167J-431	430 1/6W CARBON RES	IS
	R838	QRD161J-112	1.1K 1/6W CARBON RES	IS
	R839	QRD161J-681	680 1/6W CARBON RES	IS
	R840	QRD167J-431	430 1/6W CARBON RES	IS
	R842	QRD167J-682	6.8K 1/6W CARBON RES	IS
	R843	QRD167J-222	2.2K 1/6W CARBON RES	IS
	R844	QRD161J-112	1.1K 1/6W CARBON RES	IS
	R845	QRD161J-681	680 1/6W CARBON RES	IS
	R846	QRD167J-431	430 1/6W CARBON RES	IS
	R848	QRD161J-112	1.1K 1/6W CARBON RES	IS
	R849	QRD161J-681	680 1/6W CARBON RES	IS
	R850	QRD167J-431	430 1/6W CARBON RES	IS
	R851	QRD161J-274	270K 1/6W CARBON RES	IS
	R852	QRD161J-274	270K 1/6W CARBON RES	IS
	R853	QRD167J-511	510 1/6W CARBON RES	IS
	R854	QRD167J-511	510 1/6W CARBON RES	IS
	R855	QRD167J-682	6.8K 1/6W CARBON RES	IS
	R856	QRD167J-682	6.8K 1/6W CARBON RES	IS
	R857	QRD161J-203	20K 1/6W CARBON RES	IS
	R858	QRD161J-203	20K 1/6W CARBON RES	IS
	R859	QRD167J-103	10K 1/6W CARBON RES	IS
	R860	QRD167J-103	10K 1/6W CARBON RES	IS
	R861	QRD167J-472	4.7K 1/6W CARBON RES	IS
	R862	QRD167J-392	3.9K 1/6W CARBON RES	IS
	R863	QRD161J-105	1M 1/6W CARBON RES	IS
	R864	QRD167J-222	2.2K 1/6W CARBON RES	IS
	R865	QRD167J-224	220K 1/6W CARBON RES	IS
	R866	QRD167J-224	220K 1/6W CARBON RES	IS
	R867	QVDB94B-E15C	100K VARIABLE R	ES
	R868	QRD167J-301	300 1/6W CARBON	
	R869	QRD167J-472	4.7K 1/6W CARBON RES	IS
	R870	QRD167J-472	4.7K 1/6W CARBON RES	IS
	R875	QVAA72B-E54B	50K VARIABLE R	ES

⚠ : SAFETY PARTS

RESISTORS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	R881	QRD167J-222	2.2K 1/6W CARBON RES	IS
	R882	QRD167J-222	2.2K 1/6W CARBON RES	IS
	R883	QRD167J-222	2.2K 1/6W CARBON RES	IS
	R901	QRD161J-105	1M 1/6W CARBON RES	IS
	R902	QRD167J-223	22K 1/6W CARBON RES	IS
	R905	QRD167J-103	10K 1/6W CARBON RES	IS
	R906	QRD167J-103	10K 1/6W CARBON RES	IS U
	R906	QRD167J-103	10K 1/6W CARBON RES	IS UC
	R906	QRD167J-103	10K 1/6W CARBON RES	IS US
	R906	QRD167J-103	10K 1/6W CARBON RES	IS UT
	R911	QRD167J-103	10K 1/6W CARBON RES	IS
	R912	QRD167J-332	3.3K 1/6W CARBON RES	IS
	R913	QRD167J-392	3.9K 1/6W CARBON RES	IS
	R914	QRD161J-242	2.4K 1/6W CARBON RES	IS
	R915	QRD167J-153	15K 1/6W CARBON RES	IS
	R916	QRD167J-562	5.6K 1/6W CARBON RES	IS
	R925	QRD161J-432	4.3K 1/6W CARBON RES	IS
	R926	QRD161J-432	4.3K 1/6W CARBON RES	IS
	R927	QRD167J-103	10K 1/6W CARBON RES	IS
	R928	QRD167J-103	10K 1/6W CARBON RES	IS
	R929	QRD167J-913	91K 1/6W CARBON RES	IS
	R930	QRD167J-913	91K 1/6W CARBON RES	IS
	R931	QRD167J-822	8.2K 1/6W CARBON RES	IS
	R932	QRD167J-822	8.2K 1/6W CARBON RES	IS
	R933	QRD161J-163	16K 1/6W CARBON RES	IS
	R934	QRD161J-163	16K 1/6W CARBON RES	IS
	R941	QRD167J-103	10K 1/6W CARBON RES	IS
	R942	QRD167J-103	10K 1/6W CARBON RES	IS
	R943	QRD161J-184	180K 1/6W CARBON RES	IS
	R944	QRD167J-224	220K 1/6W CARBON RES	IS
	R945	QRD167J-224	220K 1/6W CARBON RES	IS
	R946	QRD167J-224	220K 1/6W CARBON RES	IS
	R947	QRD161J-132	1.3K 1/6W CARBON RES	IS
	R948	QVPG401-103	10K VARIABLE R	ES
	R949	QRD167J-243	24K 1/6W CARBON RES	IS
	R950	QRD167J-133	13K 1/6W CARBON RES	IS
	R951	QRD167J-683	68K 1/6W CARBON RES	IS
	RA801	QRB139J-104	100K 1/10W RESISTOR	
	RA802	QRB099J-104	100K 1/10W RESISTOR	
	RA901	QRB069J-103	10K 1/10W RESISTOR	
	RA902	QRB079J-222	2.2K 1/10W NETWORK RE	SI

⚠ : SAFETY PARTS

OTHERS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	J201	VMC0163-R06	CONNECT TERMINAL (6PIN)	
	J202	VMC0163-R06	CONNECT TERMINAL (6PIN)	
	J805	VMC0107-R05	CONNECT TERMINAL (5PIN)	
	J931	VMC0107-R05	CONNECT TERMINAL (5PIN)	
	P921	VMC0234-P11	CONNECT TERMINAL (11PIN)	
	P922	VMC0234-P14	CONNECT TERMINAL (14PIN)	
	P923	VMC0234-P08	CONNECT TERMINAL (8PIN)	
	P924	VMC0234-P08	CONNECT TERMINAL (8PIN)	
	P981	EMV5142-911	CONNECT TERMINAL (11PIN)	
	S814	ESP0001-023ZJ5	TACT SWITCH (RANDOM)	
	S815	ESP0001-023ZJ5	TACT SWITCH (REPEAT)	
	S816	ESP0001-023ZJ5	TACT SWITCH (M)	
	S817	ESP0001-023ZJ5	TACT SWITCH (M)	
	S818	ESP0001-023ZJ5	TACT SWITCH (PLAY/PAUSE)	
	S819	ESP0001-023ZJ5	TACT SWITCH (STOP/CLEAR)	
	S820	ESP0001-023ZJ5	TACT SWITCH (PROGRAM)	
	S821	ESP0001-023ZJ5	TACT SWITCH (+CD REC)	
	S822	ESP0001-023ZJ5	TACT SWITCH (CD REC)	
	S823	ESP0001-023ZJ5	TACT SWITCH (JUST EDIT)	
	S824	ESP0001-023ZJ5	TACT SWITCH (SIDE A/B)	
	S825	ESP0001-023ZJ5	TACT SWITCH (EJECT)	
	S826	ESP0001-023ZJ5	TACT SWITCH (TUNING UP)	
	S827	ESP0001-023ZJ5	TACT SWITCH (TUNING DOWN)	
	S828	ESP0001-023ZJ5	TACT SWITCH (PRESET UP)	
	S829	ESP0001-023ZJ5	TACT SWITCH (PRESET DOWN)	
	S830	ESP0001-023ZJ5	TACT SWITCH (AM)	
	S831	ESP0001-023ZJ5	TACT SWITCH (FM)	
	S832	ESP0001-023ZJ5	TACT SWITCH (REC)	
	S833	ESP0001-023ZJ5	TACT SWITCH (DAILY)	
	S834	ESP0001-023ZJ5	TACT SWITCH (HOUR)	
	S835	ESP0001-023ZJ5	TACT SWITCH (MINUTE)	
	S836	ESP0001-023ZJ5	TACT SWITCH (REC TIME)	
	S837	ESP0001-023ZJ5	TACT SWITCH (CLOCK)	
	S838	ESP0001-023ZJ5	TACT SWITCH (SLEEP)	
	S839	ESP0001-023ZJ5	TACT SWITCH (MEMORY)	
	S840	ESP0001-023ZJ5	TACT SWITCH (AUTO P.OFF)	
	S841	ESP0001-023ZJ5	TACT SWITCH (TUNER ENTRY)	
	S842	ESP0001-023ZJ5	TACT SWITCH (DISCO)	
	S843	ESP0001-023ZJ5	TACT SWITCH (HALL)	
	S844	ESP0001-023ZJ5	TACT SWITCH (STADIUM)	
	S845	ESP0001-023ZJ5	TACT SWITCH (BGM)	
	S846	ESP0001-023ZJ5	TACT SWITCH (CAR)	
	S847	ESP0001-023ZJ5	TACT SWITCH (H.PHONE)	
	S848	ESP0001-023ZJ5	TACT SWITCH (AUX)	
	S849	ESP0001-023ZJ5	TACT SWITCH (AI,S.BASS)	
	S850	ESP0001-023ZJ5	TACT SWITCH (POWER)	
	S851	ESP0001-023ZJ5	TACT SWITCH (KARAOKE)	
	BC201	EWS243-065J	SOCKET WIRE ASSY (3PIN)	
	BC202	EWS247-012J	SOCKET WIRE ASSY (7PIN)	
	BC512	EWS293-0120	SOCKET WIRE (3PIN)	
	FL801	ELU0001-160	FLUORESCENT DISPLAY TUBE	
	FW805	EWR35D-13LS	FLAT WIRE ASSY (5PIN)	
	FW851	EWR35D-16LS	CORD (5PIN)	
	FW911	EWR3AD-13LS	FLAT WIRE ASSY (10PIN)	
	FW931	EWR35D-16LS	CORD (5PIN)	
	FW999	EWR33D-10LS	FLAT WIRE ASSY (3PIN)	U
	FW999	EWR33D-10LS	FLAT WIRE ASSY (3PIN)	UC
	FW999	EWR33D-10LS	FLAT WIRE ASSY (3PIN)	US
	FW999	EWR33D-10LS	FLAT WIRE ASSY (3PIN)	UT
	JA801	VMC0163-R19	CONNECT TERMINAL (19PIN)	
	JA802	VMC0163-R13	CONNECT TERMINAL (13PIN)	
	JA803	EMV7124-006	SOCKET (6PIN)	
	JB801	VMC0163-R19	CONNECT TERMINAL (19PIN)	
	JB901	VMC0163-R21	CONNECT TERMINAL (21PIN)	
	TW907	EWT011-078	TERMINAL WIRE ASSY (11PIN)	U
	TW907	EWT011-078	TERMINAL WIRE ASSY (11PIN)	UC
	TW907	EWT011-078	TERMINAL WIRE ASSY (11PIN)	US
	TW907	EWT011-078	TERMINAL WIRE ASSY (11PIN)	UT
	XT901	ECX0004-194KM	CERAMIC RESONATOR	

⚠ : SAFETY PARTS

Accessories List

Symbol No. M 4 M M

⚠	Item	Part Number	Part Name	Q'ty	Description	Area
	1	E30580-2073A	INSTRUCTION BOOK	1		A
		E30580-2073A	INSTRUCTION BOOK	1		BS
		E30580-2072A	INSTRUCTION BOOK	1		EF
		E30580-2071A	INSTRUCTION BOOK	1		EN
		E30580-2072A	INSTRUCTION BOOK	1		G
		E30580-2072A	INSTRUCTION BOOK	1		GI
		E30580-2070A	INSTRUCTION BOOK	1		U
		E30580-2070A	INSTRUCTION BOOK	1		UC
		E30580-2070A	INSTRUCTION BOOK	1		US
		E30580-2070A	INSTRUCTION BOOK	1		UT
		E30580-2069A	INSTRUCTION BOOK	1		VX
	2.	QPGA025-03505B	POLY BAG	1		
	3	EQB4001-015	LOOP ANTENNA	1		
⚠	4	V04062-001	AC PLUG	1		U
	5	E67007-001	ANTENNA WIRE	1		G
⚠		V04062-001	AC PLUG	1		UC
⚠	6	ENZ2202-001	SIEMENS PLUG	1		US
⚠	7	V04062-001	AC PLUG	1		UT
	8	E35497-019	CAUTION SHEET	1		U
	9	E306858-002	CAUTION SHEET	1		UT
	10	E03614-004	FM FEEDER ANTENNA	1		Except G
	12	RM-SES30U	WIRE-LESS REMOTE CONTROL	1		A
		RM-SES30U	WIRE-LESS REMOTE CONTROL	1		BS
		RM-SES30U	WIRE-LESS REMOTE CONTROL	1		EF
		RM-SES30U	WIRE-LESS REMOTE CONTROL	1		EN
		RM-SES30U	WIRE-LESS REMOTE CONTROL	1		G
		RM-SES30U	WIRE-LESS REMOTE CONTROL	1		GI
		RM-SES30XU	WIRE-LESS REMOTE CONTROL	1		U
		RM-SES30XU	WIRE-LESS REMOTE CONTROL	1		UC
		RM-SES30XU	WIRE-LESS REMOTE CONTROL	1		US
		RM-SES30XU	WIRE-LESS REMOTE CONTROL	1		UT
		RM-SES30U	WIRE-LESS REMOTE CONTROL	1		VX
	13	PECA0786	RECAHRGEBLE BATTERY	2		
	14	BT-20122	WARRANTY CARD	1		A
	15	BT-20122-1	STICKER	1		A
	16	BT20060	WARRANTY CARD	1		BS
	17	BT-20066A	WARRANTY CARD	1		BS
	18	BT-20134	WARRANTY CARD	1		G

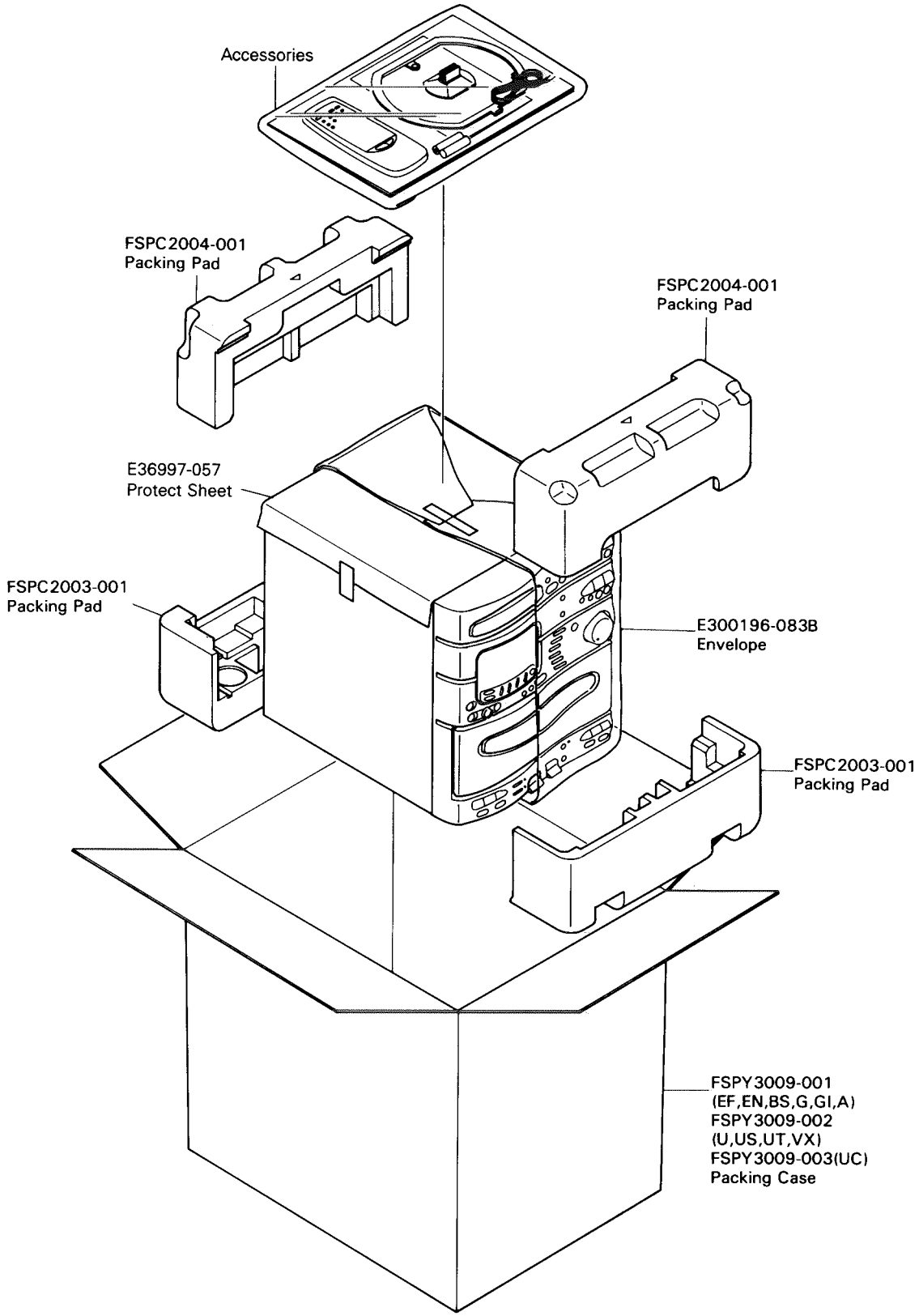
⚠ : Safety Parts

The Marks for Designated Areas

A ..... Australia
G ..... Germany
US .... Singapore
BS .... the U.K.
GI .... Italy
UT .... Taiwan
EF ..... Scandinavia
U ..... Universal Type
VX .... East Europe
EN ..... Continental Europe
UC .... China
No mark indicates all area.

Packing Materials and Part Numbers

Symbol No. M 5 M M



The Marks for Designated Areas					
A	Australia	BS	the U.K.	EF ...	Scandinavia
EN ...	Continental Europe	G	Germany	GI ...	Italy
U	Universal Type	UC ...	China	US ..	Singapore
UT ...	Taiwan	VX	East Europe	No mark indicates all area.	

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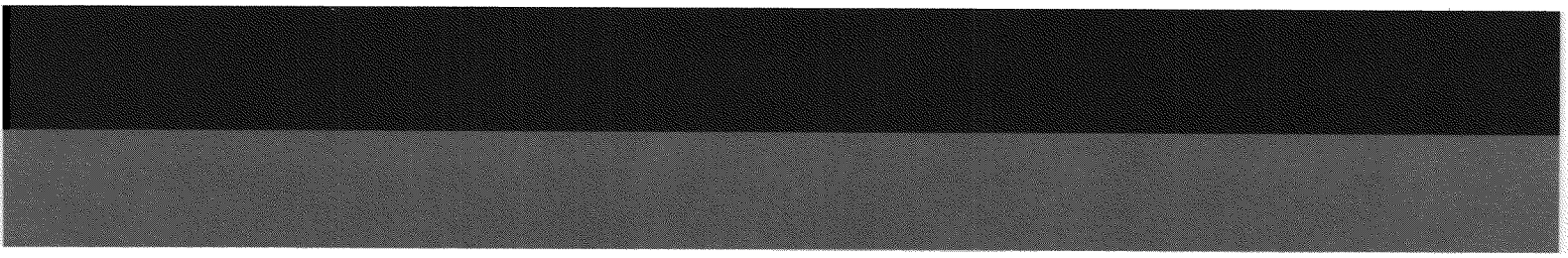
—MEMO—

CA-S30BK



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